

# **Sustainability in Businesses That Serve Food**

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# Sustainability in Businesses That Serve Food

## Table of Contents

<b>Introduction</b> .....	<b>1</b>
<b>Sustainable Food Sourcing</b> .....	<b>1</b>
Steps to Sustainable Food Sourcing .....	2
Lehigh Valley Farms & Community Supported Agriculture (CSA).....	3
<b>Packaging &amp; Waste</b> .....	<b>3</b>
Recycling.....	4
Composting .....	5
Sustainable Packaging.....	5
Moving Toward Zero Waste: If Walmart Can Do It, So Can You .....	6
<b>Energy Use</b> .....	<b>7</b>
Energy Audits.....	7
Energy Management Assistance Program (EMAP) .....	7
<b>Cleaning Products</b> .....	<b>8</b>
<b>Restaurants Rewired</b> .....	<b>8</b>
GreenGourmetToGo, Bridgeport CT ( <a href="http://www.greengourmettogo.com">www.greengourmettogo.com</a> ).....	8
Pearly Baker’s Ale House, Easton PA ( <a href="http://www.pearlybakers.net">www.pearlybakers.net</a> ).....	8
Pizza Fusion, Pittsburgh, PA ( <a href="http://www.pizzafusion.com">www.pizzafusion.com</a> ) .....	9
<b>Industry Resources &amp; Sustainability Strategy</b> .....	<b>9</b>
Industry Resources .....	9
Sustainability Strategy.....	10
<b>Conclusion</b> .....	<b>10</b>
Appendix 1: Rodale Institute’s Organic Price Calculator.....	11
Appendix 2: Foods with Highest and Lowest Pesticide Residue .....	12
Appendix 3: Recycling Energy & Material Savings.....	13
References.....	<b>14</b>

# Sustainability in Businesses That Serve Food

## Introduction

What is sustainability? Considered from an economic perspective, sustainable businesses seek to maximize stakeholder value (owners, employees, customers, suppliers, community, environment) while conventional businesses seek to maximize only shareholder value (owners and shareholders). Many businesses lie at various points on a sustainability continuum; few are purely conventional, but few have managed to grasp the true meaning and transformative power of a sustainable model. The transition to a sustainable business model does not happen overnight, but can be approached in a methodical and step-wise manner. This report identifies major sustainability issues of concern to the food service industry, and provides actionable guidelines on how organizations can reduce waste, decrease costs, and increase quality and customer satisfaction by managing their businesses from a stakeholder perspective. Sustainable improvements in the food service industry should be evaluated, tracked and communicated along the following dimensions:

- Responsible Food Sourcing
- Waste Reduction
- Energy Efficiency, Water Conservation & Building Construction
- Community and Stakeholder Involvement

The US restaurant industry includes approximately 945,000 restaurants with a projected 2010 annual revenue of \$580 billion, representing 70 billion meal or snack occasions. It is projected that in 2010, consumers' restaurant spend will represent 49% of every food dollar ("Facts at a Glance", 2010). The past two years have forced many restaurant owners to critically evaluate their standard practices in the face of rising food and energy costs. Developing sustainable business strategies is a pressing goal for many businesses that have understood the financial, environmental, and psychological capital to be gained from greater resource stewardship and operational transparency. A restaurant's food quality and sourcing, waste management, and energy demands are major aspects of a sustainable strategy that seeks to increase quality while reducing both individual and systematic costs.

## Sustainable Food Sourcing

*If you want one year of prosperity, plant corn.*

*If you want ten years of prosperity, plant trees.*

*If you want one hundred years of prosperity, educate people.*

— Chinese proverb

The informed consumer is increasingly aware of and concerned about the quality, sourcing, and preparation of his or her food. Many activists and industry experts agree that there is a burgeoning social movement representing a reconnection of people with their food, land and environment. According to the Restaurant Association of America, 73% of adults say they try to eat healthier now at restaurants than they did two years ago, ("Facts at a Glance, 2010) and sales of organic products have increased 20-25% per year since the early 1990s (Kuminoff & Wossink, 2001). Thus, it becomes evident that there exists significant opportunity for forward-thinking business owners to capitalize on the burgeoning \$20 billion consumer organics movement ("Questions About Organic", 2008).

But there must be more to a sustainable food sourcing strategy than market opportunity. Consider that 888 million pounds of pesticides are applied annually to food products in the US. That equates to 3 lbs of persistent, bio-accumulative petrochemical-based toxins for every person in the country. Many common pesticides act as hormone disruptors, and have been shown to alter basic brain chemistry. In fact, a recent Harvard University study found that children exposed to above-average levels of organophosphate insecticides—one of the most common pesticides in the US—are most than twice as likely to suffer from ADHD and a host of other developmental disorders (“The Effects of Pesticides”, 2010). While long-term effects for many commonly used chemical fertilizers and pesticides are largely unknown, it is becoming increasingly clear that consumers need to take an active role in educating themselves about the safety of their food.

Understanding the source of our food has become imperative. Government agencies cannot be counted on to enact the fundamental regulatory changes necessary for a truly sustainable food policy, so the challenge falls directly in the lap of the consumer and his or her community. Ultimately, untangling the global web of food production and transport, and gathering information on the sourcing, harvesting and quality of food as it moves through global supply chains is extremely difficult. Important environmental, health, and social-justice elements that lead to sustainability are often compromised in the effort to achieve the lowest possible price.

A responsible food production model must be reinstated if any measures of control over food quality and safety are to be regained. The “Buy Local, Buy Organic” and “Fair Trade” concepts are now familiar to many of us; however, there still appears to be a sizeable gap between comprehension and action for most businesses—most likely maintained by the industrial efficiency and cost economics of large, centralized food producers and distributors, as well as intentionally misleading marketing campaigns.

Fair Trade certification assures customers that the producers and workers are treated fairly, that they have access to education, housing, and health care, and that the products are sustainably grown. While awareness of Fair Trade is still growing, it is one of the fastest-growing market segments in the food industry—and most Fair Trade Certified products are also certified organic. Fair Trade certification has little effect on cost to the retailer, since it works by ensuring that a greater share of the price goes to the small growers who produce quality product instead of to a long chain of intermediaries.

A shift from conventionally produced products to local and organic varieties represents a potentially significant price adjustment for small local businesses, and also introduces fluctuations in seasonal supply as well as increased transaction costs associated with managing multiple suppliers. Against these costs and risks must be balanced the restaurant’s desire to provide the healthiest, most nutritious, environmentally and socially responsible product to its customers—and the restaurant’s belief in its customers’ desire to pay a premium for such food and transparency. And research suggests that consumers are willing to pay a premium for organic food. One study suggests that “consumption of organic goods is positively correlated with preferences for environmentally conscious food production” (Keoleian & Przybylo, 2010) while another cited by the same authors found that “consumers valued the following food qualities relative to one another in descending order: safety, nutrition, taste, price, environment, natural, tradition, appearance, convenience, fairness, and origin.” At this early stage in the country’s organics re-evolution, the sourcing of local and organic products coupled with effective marketing communications could represent an important point of differentiation in the marketplace, as well as a critical source of advantage as global food prices continue to rise and disruptions in the global supply chain increase.

## Steps to Sustainable Food Sourcing

A restaurant owner’s decision to transition from traditionally sourced food to local and/or organic rests heavily in principle. While total cost of production might be lower for organic foods when all externalities

are considered—\$12.5 billion in healthcare and environmental costs associated with pesticide use, plus \$45 billion in soil erosion costs associated with industrial farming practices—costs borne by the restaurant (or passed on to the customer) can be significantly higher for certain items. For restaurants competing mainly on price, this means a direct decrease to the bottom line. According to Rodale Institute’s Organic Price Report (Appendix 1) certified organic produce in Philadelphia can trade for 2 or even 3 times market price for conventionally grown products. Thus, the transition requires a recalibration of thinking about food that considers dimensions beyond lowest cost.

Benefits of a local and organic transition include the development of healthy local ecosystems, vibrant local economies, and delicious, pesticide-free food. Such things are not easily valued, and are simply not built into the pricing structure of modern, commercialized agriculture. As community supported agriculture (CSA) gains strength, and local businesses leverage their buying power the market will respond accordingly. A responsible first step in making the transition for local businesses could be:

- Ask what organic options your current supplier or wholesaler might offer
- Focus on local-sourcing a few frequently used food items or those with the most heavy concentrations of pesticide residue (Appendix 2). Even though national organic prices tend to be higher than conventional prices, local farm prices come pretty close to conventional sources
- Gradually phase out perishable products routinely purchased from international distributors that can be sourced locally or regionally
- Opt for hormone-and antibiotic-free, free-range meat when available
- Choose Fair Trade products whenever possible. Many commodities such as coffee, tea, sugar and chocolate are sourced without regard to the economic or social welfare of the indigenous peoples harvesting or processing these raw materials. Choosing Fair Trade certified products ensures that farmers and harvesters in developing nations receive both fair economic compensation and a decent working environment.

### Lehigh Valley Farms & Community Supported Agriculture (CSA)

There are plenty of sustainable, organic farms and suppliers right here in the Lehigh Valley. The Pennsylvania Association for Sustainable Agriculture (PASA) is a great resource that can be used to identify local suppliers. PASA estimates that Lehigh Valley consumers spend only \$3.1 million on local food out of \$1.50 billion per year. If each household spent only \$10 per week from May to November, \$67 million would be generated for the Lehigh Valley economy.

Buy Fresh—Buy Local of Pennsylvania <[www.buylocalpa.org](http://www.buylocalpa.org)> contains a complete list of local farms, co-ops, and CSA initiatives in the Lehigh Valley. Pure Sprouts is a Lehigh Valley company that delivers local produce to consumers and businesses, and can reduce the time required in managing multiple suppliers.

### Packaging & Waste

- A typical US restaurant generates **50,000 pounds** of garbage per year
- The average person in the US generates **4.5 pounds** of waste **Per Day**
- Up to **95%** of restaurant waste can be recycled or composted

Overcrowded landfills. Land, water and groundwater pollution. Air pollution from incinerators. Long-term economic losses through unsustainable resource use. It would be an understatement to declare that waste in the US is a huge problem that is causing serious harm to people and planet. More than half of all garbage in the US is tossed into landfills, tombs of a culture obsessed with consuming on-demand, throwaway products. The ubiquity of single-serving products and meals served in excess packaging lead many businesses and consumers to make consistently unsustainable choices. At first glance these choices seem almost unavoidable. However, a critical evaluation of a business’s packaging and waste stream can reveal many ways in which an immediate impact can be made that both saves money and helps ameliorate environmental degradation. Businesses can drastically reduce or even eliminate their waste by aggressive recycling, composting, and smart packaging and takeout choices. Conducting a waste stream audit over several business days could be a great place to start examining what containers most customers deposit their waste in, what the contents are, why recycling bins may not be used, and if a composting option might prove effective. From here, a material recovery program can be instituted with maximum effect.

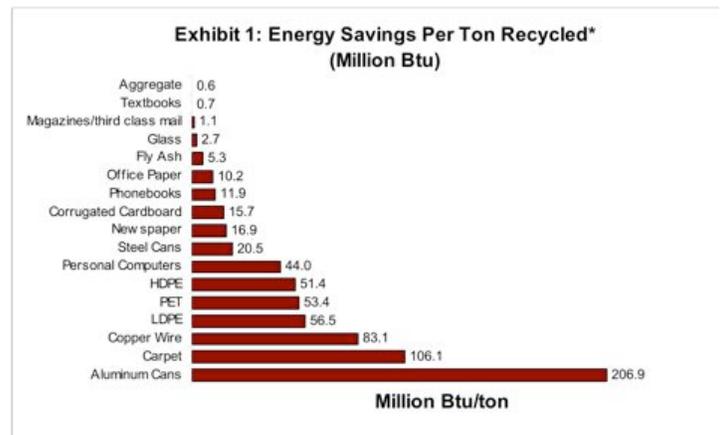
## Recycling

Making products from recycled materials saves vast amounts of resources, water, and energy compared with making products from virgin materials (Appendix 3). Glass can be recycled indefinitely, as can aluminum. Paper can be recycled 5-7 times, and many types of plastics can also be used again, although save for #1 & 2, these materials “down cycle” (are remade as lower-quality products) and should be avoided, if possible. Architect and sustainable thinker William McDonough views recycling as a crucial part in closing the inorganic resource loop, where industrial materials are used and reused countless times (McDonough & Braungart, 2002). Products containing recycled or post-consumer recycled content should be sourced whenever possible. For an example of the resources and energy recycled content saves, consider the following:

### Every ton of 100% post-consumer waste recycled paper products purchased saves...

- 12 trees
- 1,087 pounds of solid waste
- 1,560 kilowatts of energy (2 months of electric power required by the average US home)
- 1,976 lbs. of greenhouse gases (1,600 miles traveled in the average US car)
- 1,196 gallons of water
- 3 cubic yards of landfill space
- 390 gallons of oil

A study commissioned by the Environmental Protection Agency found that recycling can realize large energy savings across a variety of common metals, plastics, and papers (Choate, Pederson & Scharfenberg, 2005) when compared to landfilling. As seen below, a ton of the ubiquitous aluminum can yields almost 207 BTU/ton in energy savings if recycled, or the energy equivalent of 1,200 barrels of oil.



### *Recycling Bins*

Recycling bins should be placed next to trash bins for easy customer access. Place clearly-identifiable recycling bin or bins next to conventional garbage and identify for customers what products can and should be recycled. Paper cups, plastic utensils, and unused napkins might all be candidates for recycling that are currently being thrown out. Given the choice and appropriate direction from restaurant management, customers will make the right choices in disposing of their waste.

### Composting

Americans generate roughly 30 million tons of food waste each year, which is about 12 percent of the total waste stream. All but about 2 percent of that food waste ends up in landfills. Composting is an effective way of reducing this waste, and has the added benefits of recycling nutrients and enriching the soil. Many restaurants across the United States have started composting, including Easton's Pearly Baker's Ale House. Commercial composting programs have taken off in progressive cities such as Portland and San Francisco to much success. Businesses in the City of Portland can contract with their garbage and recycling company to participate in composting; garbage and recycling companies collect the food scraps and deliver them to a composting facility where food scraps are transformed into compost in two months.

If your city does not currently offer a commercial composting program and it's impractical to compost off-site, inexpensive commercial composters are available for small restaurant use. The \$400 NatureMill system pictured on the right should easily pay for itself over the course of a year of conventional trash-hauling. Composting is an easy way for restaurants to make a large difference in reducing waste and improving the health of their communities.



### Sustainable Packaging

Styrofoam food containers are sanitary, versatile, and cheap. But while 3-compartment Styrofoam takeout containers can be purchased for a little more than 10 cents apiece, each lingers in the environment for more than 1,000 years. Additionally, scientists have found links between prolonged exposure to polystyrene foam and various neurological and chromosomal abnormalities ("Polystyrene Foam, 2005) and the EPA has noted that polystyrene manufacturing is the fifth largest creator of hazardous waste in the U.S. Styrofoam containers, plastic utensils, wrapping papers, plastic straws, beverage cups, and napkins all represent tremendous points of waste that most consumers take for granted, but that restaurant owners cannot always easily discontinue offering. Single-use alternatives such as compostable and biodegradable serveware exist, but are approximately 2 to 4 times more expensive than disposable serveware.

Recent analyses have shown that reusable serveware costs are often on parity with or lower than the cost of disposables. When savings from waste reduction and other factors are included in the analysis, total cost is often lower. The Environmental Protection Agency and other governmental or non-profit agents provide waste calculators that businesses can use to determine savings from enacting sustainable business measures:

[www.epa.gov/osw/conservematerialsorganicsfoodtools/](http://www.epa.gov/osw/conservematerialsorganicsfoodtools/)

[www.nyc.gov/html/nycwasteless/html/in\\_business/measurement\\_tools\\_cupsbowls.shtml](http://www.nyc.gov/html/nycwasteless/html/in_business/measurement_tools_cupsbowls.shtml)

An economic and environmental analysis by Starbucks on the feasibility of reusable cups concluded that significant cost savings could be gained—and environmental harm averted—by switching from single use items. Starbucks also concluded that reusable serve ware could carry these additional economic benefits ("Report of the Starbucks Coffee Company", 2000):

- *Cost Savings*—The Task Force’s research showed that for in-store sales, the increased use of reusables eliminated the cost of disposable cups with only a minimal incremental cost. Furthermore, the greater use of in-store reusables did not measurably increase dishwasher use. During the pilot test, the additional step of asking customers “for here or to go” and bussing tables did not seem to require more labor. The cost breakdown point for ceramic cups was approximately 15 to 20 uses, and for glassware, about 25 uses.
- *Increased Customer Satisfaction*—Starbucks customers in in-store market research and focus groups consistently stated that they preferred reusable cups, noting that they insulated coffee well, were attractive, and prevented waste. Eighty-two percent of the Starbucks customers surveyed liked the idea of reusable cups, and when asked what they liked most about them, 59 percent noted the environmental benefits.
- *Enhanced Brand Equity*—Building brand equity is critical to Starbucks. In market research, Starbucks customers consistently reinforce the assumption that the company’s environmental leadership can add value to its brand. Such sound environmental practices as reusable cup programs and the overwhelmingly positive customer response to them will help Starbucks to achieve this goal.

Reusables Analysis: Universal Coffee Shop			
ASSUMPTIONS:			
\$0.15	Cost of disposable packaging (cup, lid, and insulating sleeve)		
\$1.25	Cost of 16-oz. reusable ceramic cup (cup only)		
1,000 uses	Lifetime of reusable ceramic cups		
12 hours	Number of hours the coffee shop is open per day		
RESULTS:			
No. of reusable cups used per hour	Daily cost savings*	Annual cost savings'	
2	\$ 3.57	\$1,285	
4	\$ 7.14	\$2,570	
10	\$17.85	\$6,426	
No. of reusable cups used per hour	Annual water Savings (gal.) <sup>‡</sup>	Annual greenhouse gas reduction (lb.) <sup>‡</sup>	Annual solid waste reduction (lb.) <sup>‡</sup>
2	1,631	226	252
4	3,262	452	504
10	8,155	1,130	1,260
CRITICAL SUCCESS FACTORS:			
<b>Excess Washing Capacity:</b> The Starbucks-Alliance research indicated that the system had unused dishwashing capacity.			
<b>Storage:</b> The store needs to have storage space for a small supply of cups near the service area and additional storage for dirty dishes before they are washed.			
* = no. of reusable cups used per day   cost of disposable packaging   cost of reusable serveware/1,000.			
† Multiply by 360 days.			
‡ Based on the use of a 16-oz. ceramic mug in place of a 16-oz. cup with sleeve, by weight.			

However, if a restaurant serves a large percentage of takeout customers (or perceives that these customers want takeout), recyclable serveware options might not be feasible. If this is the case, the following alternatives to conventional packaging could be considered as environmentally responsible choices to replace single-use plastic and paper items:

- **Bio-degradable food containers:** Innovative serveware options are constantly becoming available as the market for sustainable packaging expands. Starch-based containers are made from renewable, bio-based materials such as corn, potatoes, and sugarcane and can be composted to break down in a number of weeks or months. The Biodegradable Products Institute ([www.bpiworld.org](http://www.bpiworld.org)) offers valuable resources for locating eco-friendly suppliers.
- **100% post-consumer recycled paper products:** Toilet tissue, paper towels, napkins, and food wrapping items are readily available from most restaurant supply stores



### Moving Toward Zero Waste: If Walmart Can Do It, So Can You

Walmart’s ambitious environmental goal is zero waste by 2025. The company claims that “Reducing waste saves money for our customers, our suppliers, and our business. It also decreases our reliance on nonrenewable resources”. In fact, Walmart turned waste disposal cost centers into profit centers over the course of 4 years by working with suppliers to aggressively reduce packaging, and by dramatically increasing its recycling income. If the world’s largest retailer can make serious sustainability inroads, other businesses can as well. Walmart looks at the issue of sustainability from a strategic perspective—that is, the

company recognizes the economic and social advantage from enacting waste reduction plans. In fact, “anti-garbage” movements are springing up all over the country, with many restaurants leading the charge.

According to current sustainability thinkers, a zero waste strategy for restaurants might contain the following elements (“Zero Waste for Restaurants”, 2002):

- Use refillable condiment dispensers instead of individual condiment packets
- Use the minimal amount of packaging needed for take out items (no Styrofoam)
- Buy food items and supplies in bulk whenever possible to minimize packaging waste
- Donate edible food to local food banks or shelters. Compost the rest
- Use cloth towels for cleaning rather than paper towels.
- Ask vendors about shipping goods in reusable packaging or crates rather than disposable containers
- Use linen napkins, tablecloths, and placemats rather than disposable paper items. (The cost of linen service is typically cheaper than the cost of purchasing disposable items)
- Serve drinking straws in covered dispensers rather than individually paper-wrapped straws
- Where paper napkins are needed, dispense on table to reduce usage

## Energy Use

### Energy Audits

According to the non-profit organization Flex Your Power ([www.fypower.org/](http://www.fypower.org/)), restaurants rank among the most energy intensive commercial spaces. The organization recommends a comprehensive energy audit assessment to determine where restaurants can realize the most savings on cooking, heating, cooling, lighting and sanitation. Often, rebates on assessments, or free assessments are available for small businesses. The following report published on the organization’s website provides a wealth of information for how restaurant owners and managers can save money by enacting simple energy efficiency measures: [www.fypower.org/pdf/BPG\\_RestaurantEnergyEfficiency.pdf](http://www.fypower.org/pdf/BPG_RestaurantEnergyEfficiency.pdf)

There are a number of local energy and environmental engineering firms that help restaurants improve their energy use and efficiency along the following dimensions:

- Improve the efficiency of your business
- Save money on your utility bills
- Take advantage of local, state, and federal incentives with efficient upgrades
- Become a part of the solution and reduce your carbon footprint

### Energy Management Assistance Program (EMAP)

Pennsylvania offers free energy management assistance to small businesses as an extension of the state’s Small Business Development Center (SBDC) network. EMAP’s ([www.askemap.org/](http://www.askemap.org/)) approach to greening a business involves four general business areas: Energy, Materials, Assurance and Purchasing. The program provides free consulting to small businesses looking to make their operations more efficient and provides a wealth of knowledge on alternative energy tax credits, sustainability ratings scales, efficiency improvements and other sustainable measures and initiatives. Locally, the EMAP program is part of the Small Business Development Center at Lehigh University.

## Cleaning Products

Under the Hazardous Products Act of the 1960s, makers of household cleaners must disclose if a product is poisonous or flammable, but are not required to list its ingredients. Many ingredients in common cleaning agents are minor irritants, and can pose extensive health risks under prolonged exposure. Petroleum-derived cleaning products contribute to extremely poor indoor air quality in most homes and businesses, and are no more effective than traditional cleaning products (vinegar, baking soda, hydrogen peroxide, lemon juice). Switching to plant-derived cleaning products is an easy way restaurants can make an immediate positive impact on the health of customers, staff, and planet. Seventh Generation and Method products have been trusted for decades to provide quality green cleaning products at a reasonable price. Use of excessive amounts of bleach should also be avoided.

## Restaurants Rewired

When considering the steps toward sustainability it's always helpful to benchmark against competitors in one's industry, or other industries. The following mini-case studies show what's possible for restaurants taking steps toward sustainable business models.

### GreenGourmetToGo, Bridgeport CT ([www.greengourmettogo.com](http://www.greengourmettogo.com))

Green Gourmet To Go restaurant seeks to unite delicious sustainable food choices with the to-go convenience that American consumers value so highly. The restaurant represents an interesting bridge between conventional food delivery and conscientious food sourcing; principle and profit, intertwined. The restaurant's philosophy rests on four guiding principles:

- Vegetarian
- Organic
- Local
- Real Food (i.e. not processed)

The restaurant's owners state that the "Inspiration for GreenGourmetToGo came from a lifelong journey toward living and eating in harmony with the world around us and in a way that supports our healthiest potential. The dietary choices we make every day have an impact on our environment, our health, and our well-being. When we practice a thoughtful approach to how and what we eat, we have an opportunity to inspire harmony. The choices we make about food are intensely personal. The best way to lead people to a healthier more conscious diet is through example". GreenGourmetToGo composts its kitchen waste, uses exclusively bio-degradable food containers, sources as many organic and local products as it can, and uses safe cleaning products in its restaurant.

### Pearly Baker's Ale House, Easton PA ([www.pearlybakers.net](http://www.pearlybakers.net))

Pearly Baker's Ale House seeks to provide outstanding local and organic food while promoting its sustainable philosophy and developing deep community ties. The restaurant has adopted a number of sustainable measures, including:

- Using fry oil as fuel
- Recycling and composting
- Using biodegradable and annually renewable straws, takeout containers, bags, and utensils
- Training staff to be more earth-conscious

- Using eco-friendly cleaning supplies and methods
- Sourcing one third of menu items from local farms (meats are hormone & antibiotic-free, grass-fed, and organic)
- Supporting local farmers, artists and musicians

A clever promotion called “Localize It!” identifies “locavore” menu items whose ingredients are sourced from within a 50 mile radius.

### Pizza Fusion, Pittsburgh, PA ([www.pizzafusion.com](http://www.pizzafusion.com))

Fast-growing and accolade-winning franchise Pizza Fusion is pushing the boundaries of what customers expect from a fast food restaurant. 75% organic menu, carbon offsets, hybrid delivery vehicles and commitment to the highest-quality fast food available are hallmarks of a groundbreaking sustainability strategy that lies at the core of Pizza Fusion’s business. The restaurant encompasses all aspects of a sustainable enterprise and operates on a platform of transparency and accountability almost unheard of in the restaurant industry—or any other. The company’s mission includes action plans to better health, community and planet.

As quoted from the Pizza Fusion website:

Pizza Fusion is committed to a sustainable future through the preservation and improvement of the environment with all aspects of our operations and existence. We strive to improve the social, economical, and environmental well being of the world through:

- The support of sustainable business by seeking out **environmentally conscious vendors** and suppliers to partner with
- Our commitment to **environmental education** to raise awareness for more sustainable approaches to living and business
- **Educating the general public** on the importance of sustainable living through ecological community service, consumer education and environmental mentoring
- Lobbying for **political action** to support a more sustainable future
- The support of **organic agriculture**
- The **continuous evaluation** of our ecological impact in our endless pursuit to minimize our environmental footprint

The last bullet point here is particularly important. Measurement and evaluation are essential if sustainable business initiatives are to be successful.

## Industry Resources & Sustainability Strategy

### Industry Resources

Numerous non-profit, trade and professional organizations offer sustainability roadmaps, recommendations, and supplier lists. Hired consultants could provide detailed operational and strategic plans for organizations looking to go green, but there is also a large amount of free information online for restaurants that would like to adopt select sustainable practices or discover industry best-practices and adapt their restaurants accordingly. Several industry trade groups have established guidelines and certification measures for green restaurants.

A partial list of resources is included below:

#### *Best Practices & Certification*

- Restaurant Association of America’s “Greener Restaurants”
- Green Foodservice Alliance
- Green Restaurant Association

#### *Food Sourcing*

- Organic Trade Association
- Organic Consumers Association

#### *Energy, Resource Use & Climate Change*

- US Green Building Council
- 3Degrees

#### *Purchasing & Supplies*

- Responsible Purchasing Network
- Green Seal
- EcoLogo

## Sustainability Strategy

Development, codification, communication and evaluation are crucial aspects of any successful strategy implementation, including green and sustainable strategies. Sustainable strategies offer customers unique products and services that they can feel good about consuming; brand loyalty and brand evangelism are expected outcomes for companies offering quality products delivered in a sustainable organizational culture.

Green business strategist Bill Roth offers the following strategy guidelines to help sustainable companies develop lasting competitive advantage (Roth, 2008):

1. Make sustainability the core element in your product design, cost management, and branding to increase your margins and gain competitive distinction
2. Identify and supply those ‘green’ specialty products that mean something special to customers searching to buy ‘green’
3. Invest in technologies that reduce costs and emissions to gain sustainable cost control and reduce exposure to higher fossil fuel and water prices
4. “Doing green” (vs. “going green”) creates binding customer loyalties generating sustainable revenues

When considering strategy choices a business owner could keep in mind green pioneer and Seventh Generation founder Jeffrey Hollender’s belief that: “...tomorrow’s bellwether organizations are moving beyond the moralist’s dictum to be less polluting, less wasteful, “less bad”. They are striving to meet the innovator’s imposing imperative to be all nourishing, all replenishing, “all good” (Hollender, 2010).

## Conclusion

Being sustainable means developing policies and strategies that meet society’s present needs without compromising the ability of future generations to meet their own needs. Many consumers, business owners and lawmakers are rethinking what role business should play in making sustainable communities a reality. Do you want your business to be ahead of the curve? Start adopting sustainable practices now. Save money. Gain customers. Rejuvenate the planet. Much like the rise of information technology over the past few decades, the green movement can be seen as a “mega-trend” that will shape how generations of people think, act and interact with the world and its social institutions.

## Appendix 1: Rodale Institute's Organic Price Calculator

(Get current information at [www.rodaleinstitute.org/Organic-Price-Report](http://www.rodaleinstitute.org/Organic-Price-Report).)

View prices for Vegetables in Philadelphia, PA

[Read about this Market](#) 

**Product Category Notes: Week of June 25, 2010**

Organic prices are for and vegetables delivered to large organic distributors based in the Philadelphia area. Conventional prices are from the Philadelphia terminal market. Philadelphia was chosen for its wide range of organic and conventional products.

Vegetables			
Quality	Qty. 	Certified	Conv
<u>Asparagus</u>			
PQ	11#	na	\$ 30.00
<u>Avocado: Hass</u>			
PQ	48 Ct	\$ 54.00	\$ 36.00
<u>Bok Choy</u> organic price listed for baby size			
PQ	20#	\$ 43.00	na
<u>Broccoli</u>			
PQ	14 Ct	\$ 35.25	\$ 15.00
<u>Cabbage, Green</u> organic price listed for 45#; conventional price listed for 50#			
PQ	40#	\$ 42.50	\$ 10.00
<u>Carrots</u>			
PQ	24x2#	\$ 41.25	na
<u>Cauliflower</u>			
PQ	12 Ct	\$ 32.50	\$ 14.00
<u>Celery</u>			
PQ	24 Ct	\$ 39.75	\$ 20.00

Source: Rodale Institute's Organic Price Calculator. (2010). [Interactive Chart]. [www.rodaleinstitute.org/Organic-Price-Report](http://www.rodaleinstitute.org/Organic-Price-Report)

## Appendix 2: Foods with Highest and Lowest Pesticide Residue

Here is a recent sample of the Shopper’s Guide to Pesticides published by the Environmental Working Group. For current information, go to [www.foodnews.org](http://www.foodnews.org).



**EWG'S SHOPPER'S GUIDE TO PESTICIDES™**

**DIRTY DOZEN™**  
Buy These Organic

WASH IT	DIRTY
1 Celery	1 Onions
2 Peaches	2 Avocado
3 Strawberries	3 Sweet Corn
4 Apples	4 Pineapple
5 Blueberries	5 Mangos
6 Nectarines	6 Sweet Peas
7 Bell Peppers	7 Asparagus
8 Spinach	8 Kiwi
9 Cherries	9 Cabbage
10 Kale/Collard Greens	10 Eggplant
11 Potatoes	11 Cantaloupe
12 Grapes (Imported)	12 Watermelon
	13 Grapefruit
	14 Sweet Potato
	15 Honeydew Melon

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**Why Should You Care About Pesticides?**  
The growing consensus among scientists is that small doses of pesticides and other chemicals can cause lasting damage to human health, especially during fetal development and early childhood. Scientists now know enough about the long-term consequences of ingesting these powerful chemicals to advise that we minimize our consumption of pesticides.

**What's the Difference?**  
EWG research has found that people who eat five fruits and vegetables a day from the Dirty Dozen™ list consume an average of 10 pesticides a day. Those who eat from the 15 least contaminated conventionally-grown fruits and vegetables ingest fewer than 2 pesticides daily. The Guide helps consumers make informed choices to lower their dietary pesticide load.

**Will Washing and Peeling Help?**  
The data used to create these lists is based on produce tested as it is typically eaten (meaning washed, rinsed or peeled, depending on the type of produce). Rinsing reduces but does not eliminate pesticides. Peeling helps, but valuable nutrients often go down the drain with the skin. The best approach: eat a varied diet, rinse all produce and buy organic when possible.

**How Was This Guide Developed?**  
EWG analysts have developed the Guide based on data from nearly 89,000 tests for pesticide residues in produce conducted between 2000 and 2008 and collected by the U.S. Department of Agriculture and the U.S. Food and Drug Administration. You can find a detailed description of the criteria EWG used to develop these rankings and the complete list of fruits and vegetables tested at our dedicated website, [www.foodnews.org](http://www.foodnews.org).

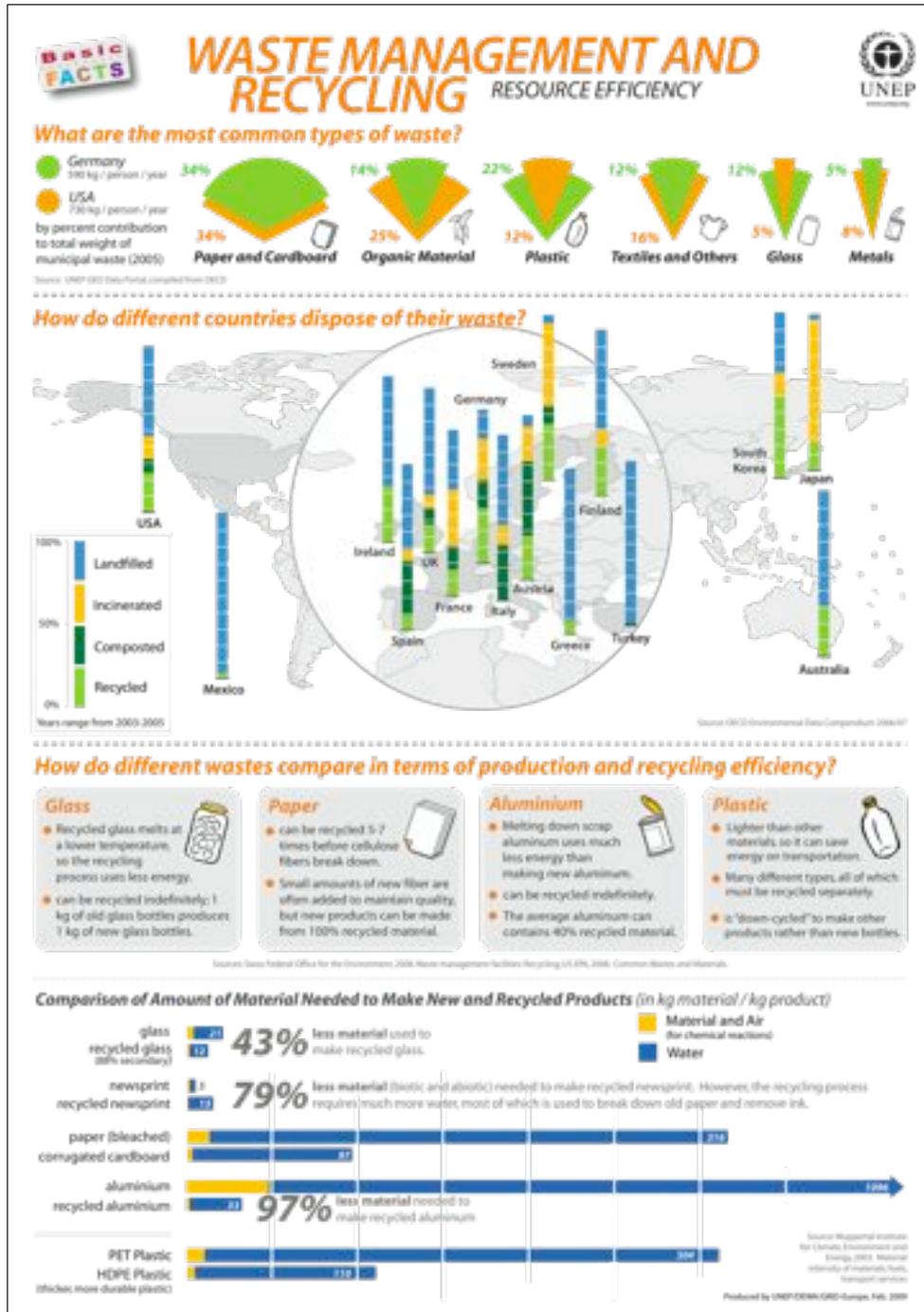
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Source: EWG’s Shopper’s Guide to Pesticides. (2010). [Info-graphic]. *Environmental Working Group*. [www.foodnews.org](http://www.foodnews.org)

## Appendix 3: Recycling Energy & Material Savings



Source: Waste Management and Recycling: Resource Efficiency. (2006). [Info-graphic]. *Geo-Data Portal, United Nations Environment Programme*. [geodata.grid.unep.ch/download/Resource%20Efficiency%20-%20Recycling.pdf](http://geodata.grid.unep.ch/download/Resource%20Efficiency%20-%20Recycling.pdf)

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