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# Redefining Green: The Green Marketing Dilemma and Redirecting our Actions with Purpose

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earthactive

# REDEFINING GREEN

THE GREEN MARKETING DILEMMA AND REDIRECTING OUR ACTIONS WITH PURPOSE

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HONORS SENIOR RESEARCH PROJECT

UNIVERSITY OF ALABAMA IN HUNTSVILLE

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Redefining Green: The Green Marketing Dilemma and Redirecting Our Actions With Purpose

**Approved by:**

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# ABSTRACT

My honors senior project will consist of two parts to incorporate both my major course of study (graphic design) and minor (marketing). I will be thoroughly investigating "green" marketing as it exists today, consumers' opinions of this approach, and creating original "green" advertisements. First, I will collect data on three product categories and how they relate to the environment and "green" marketing in general. I will also collect research concerning consumer behavior as it relates to "green" marketing. I will obtain secondary research to analyze consumer desires and motivations in purchasing (or not) "green" products. Also, I will collect my own primary research through polls, questionnaires, interviews, etc All of this information will be gathered with the intention of gaining a better insight into consumers' mindsets in order to understand what they are looking for in environmentally-friendly products. The second part of the project will consist of applying my findings and creating a series of advertisements for three "green" product categories. I will use the conclusions from my primary and secondary research to direct me in how to design for the American market. Therefore, my designs should be based directly on the wants of the consumer and be expected to more successfully gain the consumer's attention and business. Each of my designs will be accompanied by a detailed write up specifying the reasoning behind the aspects of the design. Ultimately, at the end of my project I will have written primary and secondary research, written conclusions from this research, original advertisement designs, and individual write ups for each of the designs.

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# INTRODUCTION

Whether you support it or not, much of our society is beginning to harvest concern for the environment. Talk of global warming, threats to nonrenewable resources, pollution and more natural threats have many environmental advocates searching for actions we can take to prevent these detriments. This recent interest in the environment has new “green” products that claim to benefit our planet showing up everywhere in the marketplace, and it seems just about every producer is trying to get their foot into this “green” fad. However, there should be more to this green movement than a temporary and superficial influx of cash flow to raise producers’ profits.

Offering eco-friendly products originated from the genuine concern of some that our society is destroying the environment. The main concern fueling this research project is that despite the flurry of publicity on the green movement, consumers are not buying as they say they will. Since the late 1980s, a large majority of consumers profess to support environmentally-friendly products and companies, but consumers’ buying habits do not back up this claim.[1] The aim of this research is to examine why this chasm exists in the marketplace and what steps consumers, producers, and marketers can take to bridge the gap and point the green movement in the direction it was originally intended for.

## PROBLEM

Research shows that many consumers claim to support environmentally-friendly products, however sales of "green" products do not reflect this claim. Why? How can we fix this disjunction and boost sales of "green" products?

## RESEARCH PROBLEMS

Are consumers aware of the threats to the environment?
Are consumers aware of "green" products available?
How do "green" products compare with regular products on variables such as price, quality, availability, etc?
Are there specific reasons consumers do not buy certain "green" products? What are they?
What actions can marketers take to boost "green" sales?
What actions can producers take to boost “green” sales?
What actions can consumers take to boost “green” sales?
What actions can local/national governments take to boost “green” sales?

## RESEARCH OBJECTIVES

To determine to what extent consumers are aware of threats to the environment.
To determine to what extent consumers are aware of "green" products available for purchase.

To determine how price, quality, and availability differ between regular and "green" products.
To determine and examine the reasons consumers are not buying specific "green" products.
To determine how marketers, producers, and consumers can increase sales of "green" products.
To determine how local and/or national government can increase sales of “green” products.

# GREEN MARKETING

The American Marketing Association defines “green marketing” as “the marketing of products that are presumed to be environmentally safe.”[2] This includes aspects of the product, production, and packaging that offer an environmentally-friendly benefit over similar products. Green marketing came about in the late 1980s, early 1990s. Even as early as 1975, the American Marketing Association had its first workshop on “Ecological Marketing” that resulted in a book of the same title outlining the basics of this new concept. Green efforts began with producers becoming more aware of the effects their company had on the environment throughout the year. Ben & Jerry’s ice cream was the first to write a Corporate Social Responsibility Report that accompanied their annual financial report. The concept of sustainable development came up next in 1987. The World Commission on Environment and Development defined this term as “meeting the needs of the present without compromising the ability of future generations to meet their own need.” [1] This term aimed to reshape society’s everyday thoughts to become forward-thinking and reevaluate their consumption habits in order to benefit generations after them. Sustainability and green marketing forerunner Jacquelyn Ottman wrote two books at this time (both entitled Green Marketing) that spread the word and set goals for this new trend.[1]

Since this time two decades ago, this green movement has gained much publicity but continues to struggle to reach true acceptance by consumers. Many shoppers want to support environmentally-friendly goods, but experience trouble taking this mind set to the marketplace. So why is this? Only 12% of U.S. consumers are considered “true greens” by market research firm Mintel, meaning they purchase eco-friendly products frequently. 68% purchase such products sometimes, considered “light greens,” and the remaining 20% never purchase green products.[1]

To begin addressing this issue, I conducted a survey of consumers to measure their knowledge of, concern(s) about, and attitude(s) toward green marketing, as well as their current buying habits.

# "REDEFINING GREEN" SURVEY

This survey was conducted in October and November 2009 using SurveyMonkey.com. 101 respondents participated in the survey. Tables are taken directly from the response summary provided by SurveyMonkey.

**1. What is your age?**

| | Response Percent | Response Count |
|---|---|---|
| 18-24 | 60.4% | 61 |
| 25-34 | 3.0% | 3 |
| 35-44 | 14.9% | 15 |
| 45-54 | 5.9% | 6 |
| 55-64 | 10.9% | 11 |
| 65+ | 5.0% | 5 |
| *answered question* | | 101 |
| *skipped question* | | 0 |

**2. What is your awareness of "green" products/manufacturing?**

| | Response Percent | Response Count |
|---|---|---|
| not aware | 5.0% | 5 |
| somewhat aware | 71.0% | 71 |
| very aware | 24.0% | 24 |
| *answered question* | | 100 |
| *skipped question* | | 1 |

**3. How interested are you in "green" products/manufacturing?**

| | Response Percent | Response Count |
|---|---|---|
| not interested | 18.0% | 18 |
| somewhat interested | 58.0% | 58 |
| very interested | 24.0% | 24 |
| *answered question* | | 100 |
| *skipped question* | | 1 |

**4. How concerned are you that environmental threats (such as global warming, threats to non renewable resources, pollution, etc.) may impact our planet in the near future?**

| | Response Percent | Response Count |
|---|---|---|
| not concerned | 18.0% | 18 |
| somewhat concerned | 56.0% | 56 |
| very concerned | 26.0% | 26 |
| *answered question* | | 100 |
| *skipped question* | | 1 |

**5. When do you believe environmental issues will begin to seriously impact the way you live on a daily basis?**

| | Response Percent | Response Count |
|---|---|---|
| within 10 years | 25.0% | 25 |
| within 20 years | 21.0% | 21 |
| within 30 years | 13.0% | 13 |
| within 40 years | 13.0% | 13 |
| beyond my lifetime | 28.0% | 28 |
| *answered question* | | 100 |
| *skipped question* | | 1 |

**6. Do you think there are any actions that can change, prevent, delay, or reduce the damage to our planet/environment?**

| | Response Percent | Response Count |
|---|---|---|
| Yes | 93.0% | 93 |
| No (if no, please skip to question 8) | 7.0% | 7 |
| *answered question* | | 100 |
| *skipped question* | | 1 |

**7. Whose responsibility do you think it is to make efforts to change, prevent, delay, or reduce the damage to our planet/environment? (check all that apply)**

| | Response Percent | Response Count |
|---|---|---|
| consumers | 96.8% | 91 |
| producers | 91.5% | 86 |
| local government | 67.0% | 63 |
| national government | 67.0% | 63 |
| *answered question* | | 94 |
| *skipped question* | | 7 |

**8. Where do you get your information about "green" products/news? (check all that apply)**

| | Response Percent | Response Count |
|---|---|---|
| internet | 54.0% | 54 |
| magazine | 37.0% | 37 |
| newspaper | 30.0% | 30 |
| stand-alone advertising (billboards, in-store ads, point-of-purchase displays, etc.) | 44.0% | 44 |
| **word-of-mouth** | **57.0%** | **57** |
| do not seek information on "green" products (if no, please skip to question 10) | 23.0% | 23 |
| *answered question* | | 100 |
| *skipped question* | | 1 |

**9. Do you feel satisfied with your current knowledge and information you receive about "green" products/news?**

| | Response Percent | Response Count |
|---|---|---|
| Yes | 53.8% | 42 |
| No | 46.2% | 36 |
| *answered question* | | 78 |
| *skipped question* | | 23 |

**10. Check the type(s) of "green" products you are interested in using or would be willing to use. (check all that apply)**

| | Response Percent | Response Count |
|---|---|---|
| household paper products | 82.0% | 82 |
| food | 63.0% | 63 |
| appliances | 67.0% | 67 |
| **household cleaners** | **89.0%** | **89** |
| paints | 63.0% | 63 |
| automobiles | 59.0% | 59 |
| not interested in using | 2.0% | 2 |
| *answered question* | | 100 |
| *skipped question* | | 1 |

**11. Do you currently use "green" products?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **74.3%** | **75** |
| No (if no, please skip to question 16) | 25.7% | 26 |
| *answered question* | | 101 |
| *skipped question* | | 0 |

**12. Check the types of "green" products you currently use on a regular basis. (check all that apply)**

| | Response Percent | Response Count |
|---|---|---|
| household paper products | 52.5% | 42 |
| food | 46.3% | 37 |
| appliances | 25.0% | 20 |
| **household cleaners** | **56.3%** | **45** |
| paints | 12.5% | 10 |
| automobiles | 15.0% | 12 |
| none | 7.5% | 6 |
| *answered question* | | 80 |
| *skipped question* | | 21 |

**13. Where do you shop for "green" products? (check all that apply)**

| | Response Percent | Response Count |
|---|---|---|
| Target | 56.4% | 44 |
| **Walmart** | **62.8%** | **49** |
| Chain Grocery Stores | 51.3% | 40 |
| Local Grocery Stores | 39.7% | 31 |
| National Home-Improvement stores (Home Depot, Lowe's) | 24.4% | 19 |
| Hardware stores (True Value) | 6.4% | 5 |
| *answered question* | | 78 |
| *skipped question* | | 23 |

**14. Are you wiling to pay more for a "green" product than a comparable regular product?**

| | Response Percent | Response Count |
|---|---|---|
| Yes | 56.1% | 46 |
| No (if no, please skip to question 16) | 43.9% | 36 |
| *answered question* | | 82 |
| *skipped question* | | 19 |

**15. How much more than a regular product are you willing to pay for a comparable "green" product?**

| | Response Percent | Response Count |
|---|---|---|
| 10% more | 71.7% | 38 |
| 25% more | 24.5% | 13 |
| 50% more | 3.8% | 2 |
| 75% more | 0.0% | 0 |
| 100% more | 0.0% | 0 |
| *answered question* | | 53 |
| *skipped question* | | 48 |

**16. If you do not currently use "green" products, please indicate why. (check all that apply)**

| | Response Percent | Response Count |
|---|---|---|
| lack of availability | 29.0% | 18 |
| price as compared to other products | 67.7% | 42 |
| doesn't work as well as regular products | 33.9% | 21 |
| odor/other negative side effect | 8.1% | 5 |
| lack of understanding about the product(s) and/or its "green" claims | 41.9% | 26 |
| *answered question* | | 62 |
| *skipped question* | | 39 |

I considered that it is possible that consumers do not buy green products often because they do not believe that buying green would relate positively to the health of our environment. I addressed this theory in my survey with the question, "How concerned are you that environmental threats (such as global warming, threats to non renewable resources, pollution, etc.) may impact our environment in the near future?" ("Redefining Green" Survey, 4). 18% of respondents said they were "not concerned," 56% said they were "somewhat concerned," and 26% said they were "very concerned." This indicates that 82% of respondents were at least "somewhat concerned" about threats to the environment. Another question I asked consumers was, "Do you think there are any actions that can change, prevent, delay, or reduce the damage to our planet/environment?" (survey, 6). 7% of respondents answered "no," but the remaining 93% answered "yes." These results were encouraging. Not only are a vast majority of respondents concerned about the environment, but over 90% believe there is something we can do about the damage. Finally, I also asked "Whose responsibility do you think it is to make efforts to change, prevent, delay, or reduce the damage to our planet/environment? (check all that apply)" (survey, 7). A huge majority—96.8%—of respondents cited consumers as holding the responsibility, and 91.5% believed it to be in the hands of producers as well. These results were very successful in ruling out my initial theory. The majority of the consumers addressed in my survey are concerned about the environment, believe there is something they can do, and believe that the responsibility to take action lies in the hands of producers and consumers. These are prime factors that indicate a great opportunity in the marketplace. Consumers believe that changing their purchase patterns will help the environment they are worried about. This would seem to indicate that consumers are actively looking for green products to buy to help the environment and that green marketing efforts have been successful in communicating a needed change in buyer patterns.

So, the survey has shown that 93% of people believe there are actions that can change, prevent, delay, or reduce the damage to our planet and environment. And 97% of these people believe it is consumers' responsibility to make efforts to change, prevent, delay, or reduce the damage to our environment. That means that 90% of the total 101 people surveyed believe that there are actions that can change the damage to the environment and that it's the consumers' responsibility. However, when asked, "Do you currently use 'green'

products?" only 74% answered '"yes." Therefore, 16% of people surveyed believe that they are the ones that need to help the environment but are not doing it. 16% may seem minuscule—for my survey's purpose, it only represents 16 people. However, if that number were applied on a broader scale, 16% would be a much more significant number of people. Of course, the survey sample used for my research is not broad enough to accurately apply to the entire United States, but I wish to use it in a very rough estimate. In 2000, the Census recorded 208 million people that were over the age of 18.[19] 16% of that number amounts to 33 million people. Although an extremely rough estimate, imagine if over 30 million consumers were buying contrary to the beliefs they profess. This 16% is an extremely important number and opportunity to producers and marketers.

So, I have set out to find why certain people are not buying green as they say they know they should. In every product category listed, consumers said they were "interested in using or would be willing to use" a certain category of green products sometimes over twice as frequently as they said they "currently use on a regular basis" (survey, 10, 12). So, what happens to consumers when they get to the stores? To more closely examine this essential issue, my research led me to investigate three groups of products—laundry detergent, light bulbs, and produce. All three of these products are expected to be readily available in all areas of the country and are an everyday necessity for a large majority of Americans.

# PRODUCT CATEGORY RESEARCH

## LAUNDRY DETERGENT

Americans spend $6 billion every year on laundry detergent. With the number of washing loads done with this amount of detergent, about 330 billion gallons of polluted water gets dumped into the environment per year.[3] Laundry detergent contains numerous chemicals, contaminants, and dyes that kill wildlife, pollute our water supply, and can even prove harmful to humans. This product is very widely used—everyday for many Americans—and is proven to be quite harmful to the environment, yet not much attention is paid to improving its safety. Manufacturers of laundry detergents are not required to list the product's ingredients on its label. Another discouraging reality is that words such as "non-toxic," "biodegradable," and "organic" cannot be relied on to provide accurate information about the laundry detergent these words are describing.[4] This fact makes it extremely difficult for even a well-intentioned customer to successfully choose an environmentally-friendly product unless research has been done prior to the purchase decision.

There are many significant ingredients that are imperative to be aware of for the safety of the environment. Detergents contain nonylphenol ethoxylates (NPEs), a group of alkylphenol ethoxylates (APEs) that have numerous negative side effects. NPEs can disrupt human hormones, harm the environments, and disturb the reproduction and survival of fish. The chemical is made from petroleum, therefore it is very hard to remove from water. NPEs were found in 61% of U.S. streams tested by the Sierra Club, an environmental organization. This number tells us that use of detergents containing this chemical is widespread, and severe action would need to take place in order to halt and possibly reverse this contamination. Oftentimes used alongside or instead of NPEs is Linear alkylbenzene sulfonate (LAS). This chemical is often listed on detergent bottles as an "anionic surfactant." This chemical is also proven to be unsafe and can kill aquatic life.[4]

Synthetic dyes and fragrances are also a harmful yet regular occurrence in laundry detergent. These ingredients can upset hormone balance and cause respiratory problems such as asthma. Detergents with bleach are also a concern. Chlorine in these detergents reacts with organic materials and can produce a harmful organochlorine that has negative effects on plants and animals.[4]

# LIGHT BULBS

Light bulbs are one of the more popular green products on the market today. There seems to be much wider acceptance and awareness of eco-friendly light bulbs and the impact they have on the environment. Light bulbs are a common purchase and an everyday necessity, therefore turning to their green alternative seems would be quite efficient in terms of saving energy.

Light bulbs are harmful to the environment in several ways. Using electricity to light a room burns fossil fuels, such as coal, and emits pollutants like carbon dioxide and mercury. Traditional bulbs are called incandescent bulbs, while their eco-friendly version is the CFL—compact fluorescent bulb. There are a several reasons CFLs are superior in terms of environmental consciousness. First, incandescent bulbs spend only 10% of the energy they use to produce light. 90% of their energy is, in fact, used to produce heat. The majority of a light bulb's energy is wasted on a side effect that consumers do not even want. Another concern for this industry is that an incandescent bulb emits 18 mg of mercury over its lifespan while a CFL only emits 9 mg. This mercury gets into our water and consequently damages not only the water content and the health of the organisms that live in the water, but it also taints the fish we eat that come from such waters.[5]

If every household in the United States converted to CFLs in only one room in their house, power plants would release one trillion less pounds of carbon dioxide every year.[6] This is an astonishing large number that can result from a relatively small amount of effort from consumers. NaturalNews.com estimates that 20% of an average household's energy bill is spent on lighting alone.[7] In light of the fact that the average household spent $2200 in 2008 on household energy bills, this indicates that $440 was spent on lighting.[8] So, the average U.S. household has 45 light bulbs in use,[9] and for each CFL you use, you save approximately $5.[6] Therefore, the average American household could save $225 annually on converting to CFLs from incandescent , cutting their lighting energy bill in half, not to mention the priceless benefits to the environment.

It seems as though there is no reason preventing any American from converting to CFLs everywhere they can. This would result in lower energy emissions and a cleaner environment, safer water and food, and less expensive energy bills. However, there are some drawbacks of CFL lighting. First, CFL bulbs are potentially very hazardous if they break. Because CFLs contain mercury (a neurotoxin), any breakage in the bulb releases mercury into the air and any surfaces it touches. Manufacturers even recommend not installing these bulbs over a carpeted area, because if breakage occurs on a carpet, the mercury will contaminate the carpet. If so, the contaminated section would have to be completely removed and replaced. Particularly if there are children or pregnant women present, mercury emissions can be even more dangerous. Even if a breakage does occur not over carpet, it is recommended that the user open the windows, turn off any air conditioning, and leave the room for at least fifteen minutes.[10] These risks are most likely in the front of many consumers' minds and are distracting when weighing the benefits of buying a CFL bulb.

Apart from the potential dangers of using a CFL bulb, one of the largest concerns about CFL bulbs is the price. Although these bulbs cost more initially, they are intended to last longer and therefore cost less in the long run. CFL bulbs can last up to ten times longer than incandescents and are reported to save the user $45 over the bulb's lifetime.[11]

# ORGANIC PRODUCE

Organic produce is another group of green products that is slowly creeping into mainstream America. Consumers used to be able to purchase organic produce only at small, independently owned grocery stores. That is no longer the case. Since the 1990s, the availability of organic produce has grown at an average annual rate of 20%. In 2008, 1-2% of worldwide food sales consisted of organic food.[12] This is still a small number, however, growing interest in buying organic is promising for the future.

The National Organic Standards Board defines 'organic' as "an ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity and is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony."[13] Like the definition suggests, there are several aspects of produce—from the field to the grocery store—that are harmful to the environment.

Unlike laundry detergent, producers have to gain certification from the United States Department of Agriculture (USDA) in order to market their food as "organic," and earn the "certified organic" official seal. So, there is an element of consumer confidence achieved by organic produce. Customers always know that if an item has the organic seal, it truly does match the requirements set by the USDA. In the United States, to earn the title "organic," 95% of plant and animal ingredients in a product must be organic.[12]

The main benefit of organic produce is its reduced chemical use. In order for an item to be considered "organic," the use of pesticides, herbicides, and insecticides is severely restricted. Synthetic pesticides cannot be used, but pesticides made from plants (although still potentially harmful) can be used in moderation. Studies done find that while 77% of traditional food has residue of pesticides, only 25% of organic foods are found with pesticides on. There should be no additives to the product, and oftentimes producers are required to use technology that saves energy and materials that are biodegradable. Organic farms do much to benefit the environment. Overall, they use less energy and also produce less waste. They create an environment that is able to support more diverse ecosystems of plants, animals, insects, etc. Finally, they do not emit damaging chemicals into the environment, ultimately detrimental to soil, animals, plants, water sources, and humans.[12]

Again, buying organic seems to be the best choice. However, there are some negative sides to organic produce. According to a December 2008 article by the Mayo Clinic, there is no proof that organic foods are in fact better for you nutritiously. Organic produce rots quicker than traditional produce, and organic foods are often smaller than other produce. Even more disconcerting is the clinic's report that most experts say that the small amount of pesticides on non-organic produce does not pose a big threat to the consumer's health as we all believe.[14] Upon hearing these discouraging theories, one may reconsider buying organic after all.

Besides the mystery of health benefits or not, perhaps the biggest concern with buying organic produce is the price. There are several explanations for this. Since organic farmers are forbidden to use certain pesticides, there is a need for individual weeding by hand for such crops, and there is also a much greater risk and more instances of losing a crop from disease or pests. Also, certain materials that traditional farmers are permitted to use are not allowed on organic farms—sewage sludge as fertilizer, for example. The compost and animal manure organic farmers use costs much more to transport. In addition, organic farmers must rotate their crops regularly, a costly and time-consuming process, and also grow their crops on smaller, less crowded farms. Finally, there are many administrative costs involved in getting produce certified organic.[15] While all legitimate factors contributing to the high prices of organic produce, this is still a major factor in the forefront of consumers' minds.

With this knowledge of these four focus products, I sought to put my education to use in the real world. The background information I gathered would allow me to make educated judgments and decisions in the marketplace, so my next step was to gather my own primary research from four retail stores in the Huntsville/Madison area. To choose the most effective stores to visit for my research, I consulted my survey. When consumers were asked where they shop for "green" products, Walmart attained the most selections, with 62.8% (survey, 13). Next, people identified Target (56.4%) as the second-most sought out store for green products. I also thought it relevant to explore a local grocery store, such as Star Market, (39.7% of respondents said they shopped at stores like this for green products). Finally, 24.4% of survey respondents claimed to shop at national home-improvement stores for green products, so I conducted research at Home Depot. Market research was conducted at these various stores in the Huntsville/Madison area in North Alabama.

# HOME DEPOT

1035 Memorial Pkwy NW
Huntsville, AL 35801

**STORE TYPE:** national home improvement store

## LIGHT BULBS

Market research was conducted in this store in September 2009. Counts were taken only from the designated area for light bulbs, not from any free-standing displays, end caps, etc. The researcher tallied light bulbs however they were packaged, as they were displayed on the shelf. Only standard medium-based bulbs were examined and counted. No globe, flood, candle, or flame bulbs were intentionally included in the counts. Information on the packaging is all taken from the outside of the packaging, and all claims are according to the company. Note that these numbers are not exact and are subject to any objective researcher error, unintentional.

**TALLY OF ALL PACKAGES:** 122

**TALLY OF ALL PACKAGES ADVERTISED WITH ANY ENVIRONMENTAL BENEFIT:** 89 (72.95%)

**ENVIRONMENTAL CLAIMS ON LIGHT BULB EXTERNAL PACKAGING:**

"energy saver"
"2x life"
"lasts longer"
"energy star qualified"
"save $xx"

**SPECIFIC BRANDS EXAMINED:**

**Philips soft white**
1000 hours (.68 years*)
"lasts 8 months"
40w, 60w, 75w, or 100w: 4-bulb pack = $0.87

**Philips Duramax Long Life soft white**
1500 hours (1.03 years*)
"lasts 1 year"
40w, 60w, 75w, or 100w: 4-bulb pack = $1.44

**GE Double Life soft white**
2000 hours (1.37 years*)
40w, 60w, 75w, or 100w: 6-bulb pack = $3.17

**EcoSmart CFL soft white**
10,000 hours (6.85 years*)
"70% less mercury"
40w or 60w: 4-bulb pack = $5.85
75w or 100w: 4-bulb pack = $7.97

**Philips Energy Saver CFL soft white**
12,000 hours (8.22 years*)
"lasts 11 years"
40w or 60w: 4-bulb pack = $7.98
75w or 100w: 4-bulb pack = $11.47

*based on 4 hours per day, 7 days a week (1460 hours per year), as specified by most light bulb manufacturers

**Price by Individual Bulb**

(in dollars)

| | 40w | 60w | 75w | 100w |
|---|---|---|---|---|
| **Philips s.w.** | .22 | .22 | .22 | .22 |
| **Philips Duramax Long Life s.w.** | .36 | .36 | .36 | .36 |
| **GE Double Life s.w.** | .53 | .53 | .53 | .53 |
| **EcoSmart CFL s.w.** | 1.46 | 1.46 | 1.99 | 1.99 |
| **Philips Energy Saver CFL s.w.** | 2.00 | 2.00 | 2.87 | 2.87 |

TABLE 1

**Price by Individual Bulb by Cost Per Hour***

(in dollars)

| | 40w | 60w | 75w | 100w |
|---|---|---|---|---|
| **Philips s.w.** | .000218 | .000218 | .000218 | .000218 |
| **Philips Duramax Long Life s.w.** | .000240 | .000240 | .000240 | .000240 |
| **GE Double Life s.w.** | .000264 | .000264 | .000264 | .000264 |
| **EcoSmart CFL s.w.** | .000146 | .000146 | .000199 | .000199 |
| **Philips Energy Saver CFL s.w.** | .000166 | .000166 | .000239 | .000239 |

TABLE 2

*based on total hours lasted as claimed by manufacturer

**Price by Individual Bulb by Cost Per Year***

(in dollars)

| | 40w | 60w | 75w | 100w |
|---|---|---|---|---|
| **Philips s.w.** | .32 | .32 | .32 | .32 |
| **Philips Duramax Long Life s.w.** | .35 | .35 | .35 | .35 |
| **GE Double Life s.w.** | .39 | .39 | .39 | .39 |
| **EcoSmart CFL s.w.** | .21 | .21 | .29 | .29 |
| **Philips Energy Saver CFL s.w.** | .24 | .24 | .35 | .35 |

TABLE 3

*based on 4 hours of use per day, 7 days a week (1460 hours per year), as specified by most light bulb manufacturers; taken from calculations of “price by individual bulb by hours” lasted, not from any manufacturers’ claims of years lasted

**Light Bulb Prices Ranked Lowest to Highest**

| Price by individual bulb | Price by individual bulb by cost per hour (based on total hours lasted as claimed by manufacturer) | Price by individual bulb by cost per year |
|---|---|---|
| Philips soft white | EcoSmart CFL soft white | EcoSmart CFL soft white |
| Philips Duramax Long Life soft white | Philips Energy Saver CFL soft white | Philips Energy Saver CFL soft white |
| GE Double Life soft white | Philips soft white | Philips soft white |
| EcoSmart CFL soft white | Philips Duramax Long Life | Philips Duramax Long Life |
| Philips Energy Saver CFL soft white | GE Double Life soft white | GE Double Life soft white |

TABLE 4

Although Philips soft white light bulb is cheapest per individual bulb, it is actually third most expensive when compared by cost per hour and cost per year. And, although EcoSmart CFL soft white light bulb is second most expensive per individual bulb, it is the cheapest when compared by cost per hour and cost per year.

Per individual bulb, a Philips Energy Saver CFL soft white light bulb costs 809.1% more than a Philips soft white light bulb. However, when compared by cost per year, a Philips Energy saver CFL soft white bulb costs 33.3% less than a Philips soft white bulb. (These calculations are valid only for 40 and 60 watt bulbs.)

Similarly, per individual bulb, an Ecosmart CFL soft white light bulb costs 175.5% more than a GE Double Life soft white light bulb. But when compared by cost per year, an EcoSmart CFL soft white bulb costs 85.7% less than a GE Double Life soft white bulb. (These calculations are valid only for 40 and 60 watt bulbs.)

These calculations show that, within these specific light bulbs researched, CFLs do cost more per individual bulb than incandescent bulbs, but are cheaper than incandescent bulbs per year.

# STAR MARKET

7950 Hwy 72 West
Madison, AL 35758

**STORE TYPE:** local grocery store

## PRODUCE

*Market research was conducted in this store in September 2009. Counts were taken only from the designated area for produce. The researcher tallied produce however it was displayed. Both loose individual and packaged produce items were considered and counted. Note that these numbers are not exact and are subject to any objective researcher error, unintentional.

**TALLY OF ALL PRODUCE, LOOSE INDIVIDUAL OR PACKAGE:** 192

**TALLY OF PRODUCE ADVERTISED ORGANIC:** 2 (1.04%)

**SPECIFIC BRANDS EXAMINED:**

**Green Giant Carrots (bagged)**
2 lbs = $1.79

**Earthbound Organic Carrots (bagged)**
2 lbs = $2.39

**Green Giant Baby Carrots (bagged)**
1 lb = $1.39

**Earthbound Organic Mini Peeled Carrots (bagged)**
1 lb = $1.99

**Produce Price by Pound**
(in dollars)

| | |
|---|---|
| **Green Giant Carrots (bagged)** | .90 |
| **Earthbound Organic Carrots (bagged)** | 1.20 |
| **Green Giant Baby Carrots (bagged)** | 1.39 |
| **Earthbound Organic Mini Peeled Carrots (bagged)** | 1.99 |
| **EcoSmart CFL s.w.** | .21 |
| **Philips Energy Saver CFL s.w.** | .24 |

TABLE 5

Earthbound Organic Carrots are 33% more expensive than non-organic Green Giant Carrots.
Earthbound Organic Mini Peeled Carrots are 43% more expensive than non-organic Green Giant Baby Carrots.

## LAUNDRY DETERGENT

*Market research was conducted in this store in September 2009. Counts were taken only from the designated area for laundry detergent. The researcher tallied detergents however they were displayed. Containers of the same product in different sizes or scents were each counted as individual products. Both liquid and powder detergents were considered and counted. Note that these numbers are not exact and are subject to any objective researcher error, unintentional.

**TALLY OF ALL LAUNDRY DETERGENT:** 187

**TALLY OF PACKAGES ADVERTISED WITH APPEARANCE OF A "GREEN" CLAIM:** 14 (7.49%)

**WORDS/PHRASES ON CONTAINER EXTERIOR INDICATING A "GREEN" CLAIM:**

"free and clear of dyes and perfumes"
"natural cleaning power"
"natural extracts"
"better for the environment"
"concentrated"
"recyclable bottle"
"biodegradable"
"design for the environment"
"100% natural"

**SPECIFIC BRANDS EXAMINED:**

**Ultra Purex Natural Elements**
50 oz, 32 loads = $4.94
"100% natural"
"natural extracts"
"less waste, better for the environment"
"biodegradable"
"recyclable"
"naturally derived cleaning agents"

**Green Works**
45 oz, 30 loads = $8.28
"natural ingredients"
"95% natural"
""recyclable"
"plant and mineral based"
"biodegradable"

**Sun Burst Free and Clear**
45.4 oz, 29 loads = $2.24
"environmentally friendly"
"fragrance and dye free"
"vegetable-based cleaning agents"
"biodegradable surfactants"
"no phosphate"
"safe for septic tanks"

**ValuTime**
128 oz, 42 loads = $3.78
"no phosphate"
"safe for septic tanks"
"biodegradable cleaning agents"
"recyclable"

**Gain 2x Ultra**
100 oz, 64 loads = $11.98
"safe for septic tanks"
"recyclable"
"no phosphate"

Food Club Supreme Clean 2x
50 oz, 32 loads = $4.68
"biodegradable"
"no phosphorous"
"safe for septic tanks"
""recyclable"

**Price by Individual Load***

(in dollars)

| | |
|---|---|
| **Ultra Purex Natural Elements** | .15 |
| **Green Works** | .28 |
| **Sun Burst Free and Clear** | .08 |
| **ValuTime** | .09 |
| **Gain 2x Ultra** | .19 |
| **Food Club Supreme Clean 2x** | .15 |

TABLE 6

*number of loads per bottle is according to manufacturer's claim

**List of Detergents and "Green" Claims On Bottle Exterior**

| | Ultra Purex Natural Elements | Green Works | Sunburst Free & Clear | ValuTime | Gain 2x Ultra | Food Club Supreme Clean 2x |
|---|---|---|---|---|---|---|
| **X% natural** | X | X | | | | |
| **Natural extracts** | X | X | | | | |
| **Better for environment** | X | | X | | | |
| **Biodegrad-able** | X | X | X | X | | X |
| **Recyclable** | X | X | | X | X | X |
| **Naturally derived cleaning agents** | X | X | X | | | |
| **Free of fragrance** | | | X | | | |
| **Free of dyes** | X | | X | | | |
| **No phosphorous** | X | | X | X | X | X |
| **Safe for septic tanks** | X | | X | X | X | X |

TABLE 7

# WALMART SUPERCENTER

6140 University Dr NW
Huntsville, AL 35806

## PRODUCE

*Market research was conducted in this store in November 2009. Counts were taken only from the designated area for produce. The researcher tallied produce however it was displayed. Both loose individual and packaged produce items were considered and counted. Note that these numbers are not exact and are subject to any objective researcher error, unintentional.

**TALLY OF ALL PRODUCE, LOOSE INDIVIDUAL OR PACKAGED:** 234

**TALLY OF PRODUCE ADVERTISED ORGANIC:** 18 (7.69%)

**SPECIFIC BRANDS EXAMINED:**

**Red, Seedless Grapes (bagged)**
1 lb = $1.68

**Organic Red, Seedless Grapes (bagged)**
2 lbs = $4.00

**Michael Cultler Yellow Onions (bagged)**
3 lbs = $1.88

**Our World Yellow Organic Onions (bagged)**
3 lbs = $2.98

**Tanimura & Anthe Celery (bagged)**
22 stalks = $1.98

**Earthbound Farms Organic Celery (bagged)**
1 lb (approx. 18 stalks) = $2.78

**Bolthouse Farms Baby Carrots (bagged)**
2 lbs = $2.98

**Earthbound Organic Mini Peeled Carrots (bagged)**
1 lb = $1.94

**Produce Price by Pound**
(in dollars)

| | |
|---|---|
| **Green Giant Carrots (bagged)** | .90 |
| **Earthbound Organic Carrots (bagged)** | 1.20 |
| **Green Giant Baby Carrots (bagged)** | 1.39 |
| **Earthbound Organic Mini Peeled Carrots (bagged)** | 1.99 |

TABLE 8

Organic red, seedless grapes are 19% more expensive than conventional red, seedless grapes.
Organic Our World yellow onions are 50% more expensive than Michael Cultler onions.
Organic Earthbound Farms celery is 72% more expensive than Tanimura & Anthe celery.
Organic Earthbound Mini Peeled carrots are 30% more expensive than Bolthouse Farms baby carrots.

## LAUNDRY DETERGENT

*Market research was conducted in this store in November 2009. Counts were taken only from the designated area for laundry detergent. The researcher tallied detergents however they were displayed. Containers of the same product in different sizes or scents were each counted as individual products. Both liquid and powder detergents were considered and counted. Note that these numbers are not exact and are subject to any objective researcher error, unintentional.

**TALLY OF ALL LAUNDRY DETERGENT:** 113

**TALLY OF PACKAGES ADVERTISED WITH APPEARANCE OF A "GREEN" CLAIM:** 13 (11.5%)

**WORDS/PHRASES ON CONTAINER EXTERIORS INDICATING A "GREEN" CLAIM:**

"free and clear of dyes and perfumes"
"naturally sourced cleaning power"
"design for the environment"
"biodegradable"
"natural extracts"
"plant-based surfactants"
"recyclable"

**SPECIFIC BRANDS EXAMINED:**

**Ultra Purex Natural Elements**
100 oz, 64 loads = $6.88
"naturally sourced cleaning power"
"biodegradable"
"free of dyes"
"natural fragrance extracts"
"plant-based surfactants"
"recycled"
"no phosphorus"
"safe for septic"

**Ultra Purex**
100 oz, 64 loads= $6.78
"no phosphate"
"safe for septic"
"recycled"

**Cheer Bright Clean, Free & Gentle 2x Concentrated**
100 oz, 64 loads= $10.44
"biodegradable surfactants"
"no dyes and perfumes"
"no phosphate"
"recycled"

**Sun Burst 2x Double Concentrated**
175 oz, 112 loads= $6.48
"no phosphorus"
"biodegradable"
"safe for septic"
"recyclable"

**Great Value 2x Concentrated**
100 oz, 64 loads= $8.78
"recyclable"

**Tide 2x Ultra Free and Clear**
100 oz, 64 loads= $13.97
"free of dyes and perfumes"
"recycled"
"no phosphate"

**Price by Individual Load***
(in dollars)

| | |
|---|---|
| **Ultra Purex Natural Elements** | .11 |
| **Ultra Purex** | .11 |
| **Cheer Bright Clean Free & Gentle 2x** | .16 |
| **Sun Burst 2x** | .06 |
| **Great Value 2x** | .14 |
| **Tide 2x Ultra** | .22 |

TABLE 9

*number of loads per bottle is according to manufacturer's claim

**List of Detergents and "Green" Claims On Bottle Exterior**

| | Ultra Purex Natural Elements | Ultra Purex | Cheer Bright Clean F&G 2x | Sunburst 2x | Great Value 2x | Tide 2x Ultra Free & Clear |
|---|---|---|---|---|---|---|
| **Naturally sourced cleaning power** | X | | | | | |
| **Biodegradable** | X | | X | X | | |
| **Free of dyes** | X | | X | | | X |
| **Free of perfumes** | | | X | | | X |
| **Natural extracts** | X | | | | | |
| **Plant-based surfactants** | X | | | | | |
| **Recycled** | X | X | X | X | X | X |
| **No phosphorus** | X | X | X | X | | X |
| **Safe for septic tanks** | X | X | | X | | |

TABLE 10

## LIGHT BULBS

*Market research was conducted in this store in January 2010. Counts were taken only from the designated area for light bulbs, not from any free-standing displays, end caps, etc. The researcher tallied light bulbs however they were packaged, as they were displayed on the shelf. Only standard medium-based bulbs were examined and counted. No globe, flood, candle, or flame bulbs were intentionally included in the counts. Information on the packaging is taken from the outside of the packaging, and all claims are according to the company. Note that these numbers are not exact and are subject to any objective researcher error, unintentional.

**TALLY OF ALL PACKAGES:** 83 **TALLY OF PACKAGES ADVERTISED WITH ANY ENVIRONMENTAL BENEFIT:** 51 (61.5%)

**ENVIRONMENTAL CLAIMS ON LIGHT BULB EXTERNAL PACKAGING:**

"save energy"
"lasts longer"
"energy star qualified"
"save $xx in energy"
"CFL"
"long life"
"lasts x years"

**SPECIFIC BRANDS EXAMINED:**

**GE soft white**
1000 hours—40, 60w / 750 hours—75, 100w (.68 / .51 years*)
40w, 60w, 75w, 100w: 4-bulb pack = $1.36

**GE Long Life soft white**
1330 hours—40, 60w / 1000 hours—75, 100w (.91 / .68 years*)
40w, 60w, 75w, or 100w: 4-bulb pack = $1.50

**SPECIFIC BRANDS EXAMINED CONTINUED:**

**GE Energy Smart CFL**
10,000 hours (6.85 years*)
“lasts 6 years”
40w or 60w: 3-bulb pack = $5.88
75w or 100w: 3-bulb pack = $7.50

**Great Value CFL soft white**
10,000 hours (6.85 years*)
40w or 60w: 3-bulb pack = $4.92
75w or 100w: 3-bulb pack = $5.92

*based on 4 hours per day, 7 days a week (1460 hours per year), as specified by most light bulb manufacturers

**Price by Individual Bulb**
(in dollars)

| | 40w | 60w | 75w | 100w |
|---|---|---|---|---|
| **GE soft white** | .34 | .34 | .34 | .34 |
| **GE Long Life soft white** | .38 | .38 | .38 | .38 |
| **GE Energy Smart CFL** | 1.96 | 1.96 | 2.50 | 2.50 |
| **Great Value CFL soft white** | 1.64 | 1.64 | 1.97 | 1.97 |

TABLE 11

**Price by Individual Bulb by Cost Per Hour***
(in dollars)

| | 40w | 60w | 75w | 100w |
|---|---|---|---|---|
| **GE soft white** | .000340 | .000340 | .000453 | .000453 |
| **GE Long Life soft white** | .000282 | .000282 | .000375 | .000375 |
| **GE Energy Smart CFL** | .000196 | .000196 | .000250 | .000250 |
| **Great Value CFL soft white** | .000164 | .000164 | .000197 | .000197 |

TABLE 12

*based on total hours lasted as claimed by manufacturer

**Price by Individual Bulb by Cost Per Year***
(in dollars)

| | 40w | 60w | 75w | 100w |
|---|---|---|---|---|
| **GE soft white** | .50 | .50 | .50 | .50 |
| **GE Long Life soft white** | .41 | .41 | .41 | .41 |
| **GE Energy Smart CFL** | .29 | .29 | .37 | .37 |
| **Great Value CFL soft white** | .24 | .24 | .29 | .29 |

TABLE 13

*based on 4 hours of use per day, 7 days a week (1460 hours per year), as specified by most light bulb manufacturers; taken from calculations of “price by individual bulb by hours” lasted, not from any manufacturers’ claims of years lasted

**Light Bulb Prices Ranked Lowest to Highest**

| Price by individual bulb | Price by individual bulb by cost per hour (based on total hours lasted as claimed by manufacturer) | Price by individual bulb by cost per year |
|---|---|---|
| GE soft white | Great Value CFL soft white | Great Value CFL soft white |
| GE Long Life soft white | GE Energy Smart CFL | GE Energy Smart CFL |
| Great Value CFL soft white | GE Long Life soft white | GE Long Life soft white |
| GE Energy Smart CFL | GE soft white | GE soft white |

TABLE 14

The GE soft white incandescent bulb is the cheapest per individual bulb, however is it the most expensive when compared by cost per hour and cost per year. And, although the Great Value CFL soft white bulb is the 2nd most expensive per individual bulb, it is the cheapest when compared by cost per hour and cost per year.

Per individual bulb, a GE Energy Smart CFL bulb costs 476.5% more than a GE soft white bulb. However, when compared by cost per year, a GE Energy Smart CFL bulb costs 72.4% less than a GE soft white bulb. (These calculations are valid only for 40 and 60 watt bulbs.)

Similarly, per individual bulb, a Great Value CFL soft white bulb costs 331.6% more than a GE Long Life soft white bulb. However, when compared by cost per year, a Great Value CFL soft white bulb costs 70.8% less than a GE Long Life soft white bulb. (These calculations are valid only for 40 and 60 watt bulbs.)

These calculations show that, within these specific light bulbs researched, CFL light bulbs do cost more per individual bulb than incandescent bulbs, but are cheaper than incandescent bulbs per year due to their longer lasting energy.

# SUPER TARGET

## PRODUCE

*Market research was conducted in this store in September 2009. Counts were taken only from the designated area for produce. The researcher tallied produce however it was displayed. Both loose individual and packaged produce items were considered and counted. Note that these numbers are not exact and are subject to any objective researcher error, unintentional.

**TALLY OF ALL PRODUCE, LOOSE INDIVIDUAL OR PACKAGED:** 253

**TALLY OF PRODUCE ADVERTISED ORGANIC:** 33 (13.0%)

**SPECIFIC BRANDS EXAMINED:**

**Royal Gala Apples**
1 lb = $1.69

**Taylor Romaine Hearts**
10 oz = $2.99

**SPECIFIC BRANDS EXAMINED CONTINUED:**

**Sage Organic Gala Apples**
2 lbs = $4.99

**Conventional Cucumber**
1 (approx 14oz) = $0.99

**Pero Organic Cucumber**
1 (approx 14oz) = $2.49

**Foxy Organic Romaine Hearts**
12 oz = $3.99

**Green Giant Baby Carrots**
2 lbs = $2.99

**Bunny Luv Organic Baby Carrots**
2 lbs = $3.29

**Produce Price by Pound**
(in dollars)

| | |
|---|---|
| **Royal Gala Apples** | 1.69 |
| **Organic Sage Gala Apples** | 2.49 |
| **Conventional Cucumber** | 1.13 |
| **Organic Pero Cucumber** | 2.85 |
| **Taylor Romaine Hearts** | 4.78 |
| **Organic Foxy Romaine Hearts** | 5.32 |
| **Green Giant Baby Carrots** | 1.50 |
| **Bunny Luv Organic Baby Carrots** | 1.65 |

TABLE 15

Organic Sage Gala apples are 47% more expensive than Royal Gala apples.
Organic Pero cucumbers are 152% more expensive than conventional cucumbers.
Organic Foxy Romaine Hearts are 11% more expensive than Taylor Romaine Hearts.
Organic Bunny Luv Baby Carrots are 10% more expensive than Green Giant Baby Carrots.

## LAUNDRY DETERGENT

*Market research was conducted in this store in September 2009. Counts were taken only from the designated area for laundry detergent. The researcher tallied detergents however they were displayed. Containers of the same product in different sizes or scents were each counted as individual products. Both liquid and powder detergents were considered and counted. Note that these numbers are not exact and are subject to any objective researcher error, unintentional.

**TALLY OF ALL LAUNDRY DETERGENT:** 138

**TALLY OF PACKAGES ADVERTISED WITH APPEARANCE OF A "GREEN" CLAIM:** 19 (13.8%)

**WORDS/PHRASES ON CONTAINER EXTERIORS INDICATING A "GREEN" CLAIM:**

"recyclable"
"no phosphate"
"natural surfactants"
"free of dyes"
"free of perfumes"
"natural fragrances"
"safe for septic systems"
"use less"
"non-animal derived enzymes"
"biodegradable"

**SPECIFIC BRANDS EXAMINED:**

**Seventh Generation**
100 oz, 66 loads= $14.99
"plant-derived agents"
"non-animal derived enzymes"
"scent from 100% whole essential oils and extracts"

**Method**
64 oz, 64 loads= $14.99
"biodegradable"
"plant-based surfactants"
"phosphate free"
"dye free"

**Arm and Hammer 2x Concentrated**
150 oz, 96 loads= $7.04
"recyclable"
"no phosphate"
"safe for septic tanks"

**Tide 2x Ultra**
100 oz, 64 loads= $10.99
"no phosphate"
"recyclable"

**Up & Up**
100oz, 64 loads= $7.99
"no phosphorous"
"safe for septic"
"biodegradable cleaning agents"
"recyclable"

**All 2x Ultra**
100 oz, 64 loads= $9.54
"safe for septic"
"biodegradable surfactants"
"recyclable"
"no phosphorus"

**Price By Individual Load***
(in dollars)

| | |
|---|---|
| **Seventh Generation** | .23 |
| **Method** | .23 |
| **Up & Up** | .12 |
| **Tide 2x Ultra** | .17 |
| **Arm & Hammer 2x** | .07 |
| **All 2x** | .15 |

TABLE 16

*number of loads per bottle is according to manufacturer's claim

List of Detergents and "Green" Claims On Bottle Exterior

| | Seventh Generation | Method | Up & Up | Tide 2x Ultra | Arm & Hammer 2x | All 2x |
|---|---|---|---|---|---|---|
| **Plant-derived agents** | X | X | | | | |
| **Non-animal derived agents** | X | | | | | |
| **Scent from 100% whole essential oils and extracts** | X | | | | | |
| **Dye-free** | | X | | | | |
| **Phosphate-free** | | X | X | X | X | X |
| **Biodegradable** | | X | X | | | X |
| **Safe for septic tanks** | | | X | | X | X |
| **Recyclable** | | | X | X | X | X |

TABLE 17

## LIGHT BULBS

*Market research was conducted in this store in January 2010. Counts were taken only from the designated area for light bulbs, not from any free-standing displays, end caps, etc. The researcher tallied light bulbs however they were packaged, as they were displayed on the shelf. Only standard medium-based bulbs were examined and counted. No globe, flood, candle, or flame bulbs were intentionally included in the counts. Information on the packaging is taken from the outside of the packaging, and all claims are according to the company. Note that these numbers are not exact and are subject to any objective researcher error, unintentional.

**TALLY OF ALL PACKAGES:** 80 **TALLY OF PACKAGES ADVERTISED WITH ANY ENVIRONMENTAL BENEFIT:** 51 (63.8%)

**ENVIRONMENTAL CLAIMS ON LIGHT BULB EXTERNAL PACKAGING:**

"save $xx in energy"
"long life"
"x % longer life"
"energy star qualified"
"CFL"

**SPECIFIC BRANDS EXAMINED:**

**Generic Brand**
1000 hours (.68 years*)
40w, 60w, 75w, 100w: 4-bulb pack = $0.77

**GE soft white**
1000 hours—60w / 750 hours—75, 100w (.68 / .51 years)
60w, 75w, 100w: 8-bulb pack = $2.59

**GE Long Life soft white**
1500 hours (1.03 years*)
40w, 60w, 75w, or 100w: 4-bulb pack = $1.69

**Target Energy Saving CFL**
10,000 hours (6.85 years*)
"lasts 2 years"
60w: 4-bulb pack = $6.49

**SPECIFIC BRANDS EXAMINED CONTINUED:**

**GE Energy Smart CFL**
12,000 (8.22 years*)
“lasts 8 years”
40w, 60w, 75w or 100w: 2-bulb pack = $6.99

*based on 4 hours per day, 7 days a week (1460 hours per year), as specified by most light bulb manufacturers

**Price by Individual Bulb**
(in dollars)

| | 40w | 60w | 75w | 100w |
|---|---|---|---|---|
| **Generic Brand** | .19 | .19 | .19 | .19 |
| **GE soft white** | n/a | .32 | .32 | .32 |
| **GE Long Life soft white** | .42 | .42 | .42 | .42 |
| **Target Energy Saving CFL** | n/a | 1.62 | n/a | n/a |
| **GE Energy Smart CFL** | 3.50 | 3.50 | 3.50 | 3.50 |

TABLE 18

**Price by Individual Bulb by Cost Per Hour***
(in dollars)

| | 40w | 60w | 75w | 100w |
|---|---|---|---|---|
| **Generic Brand** | .000193 | .000193 | .000193 | .000193 |
| **GE soft white** | n/a | .000324 | .000432 | .000432 |
| **GE Long Life soft white** | .000282 | .000280 | .000280 | .000280 |
| **Target Energy Saving CFL** | n/a | .000162 | n/a | n/a |
| **GE Energy Smart CFL** | .000292 | .000292 | .000292 | .000292 |

TABLE 19

*based on total hours lasted as claimed by manufacturer

**Price by Individual Bulb by Cost Per Year***
(in dollars)

| | 40w | 60w | 75w | 100w |
|---|---|---|---|---|
| **Generic Brand** | .28 | .28 | .28 | .28 |
| **GE soft white** | n/a | .47 | .63 | .63 |
| **GE Long Life soft white** | .41 | .41 | .41 | .41 |
| **Target Energy Saving CFL** | n/a | .24 | n/a | n/a |
| **GE Energy Smart CFL** | .43 | .43 | .43 | .43 |

TABLE 20

*based on 4 hours of use per day, 7 days a week (1460 hours per year), as specified by most light bulb manufacturers; taken from calculations of “price by individual bulb by hours” lasted, not from any manufacturers’ claims of years lasted

**Light Bulb Prices Ranked Lowest to Highest**

| Price by individual bulb | Price by individual bulb by cost per hour (based on total hours lasted as claimed by manufacturer) | Price by individual bulb by cost per year |
|---|---|---|
| Generic Brand | Target Energy Saving CFL | Target Energy Saving CFL |
| GE soft white | Generic Brand | Generic Brand |
| GE Long Life soft white | GE Long Life soft white | GE Long Life soft white |
| Target Energy Saving CFL | GE Energy Smart CFL | GE Energy Smart CFL |
| GE Energy Smart CFL | GE soft white | GE soft white |

TABLE 21

The generic brand incandescent light bulb is the cheapest when initially purchased, however it is only the 2nd cheapest when compared by cost per hour and cost per year. And, although the Target Energy Saving CFL bulb is the 2nd most expensive bulb when initially purchased, it is the cheapest when compared by cost per hour and cost per year.

Per individual bulb, a GE Energy Smart CFL bulb costs 1,742% more than a generic brand incandescent light bulb. When compared by cost per year, a GE Energy Smart CFL bulb remains a higher price than the generic incandescent bulb at 54.6% more expensive.

Per individual bulb, a Target Energy Saving CFL bulb costs 406.3% more than a GE soft white bulb. However, when compared by cost per year, a Target Energy Saving CFL bulb costs 95.8% less than a GE soft white bulb. (These calculations are valid only for 60 watt bulbs.)

These calculations show that, within these specific light bulbs researched, CFL light bulbs do cost more per individual bulb than incandescent bulbs. Sometimes the CFLs finish up as being less expensive per year. However, sometimes CFLs remain more expensive at their price per year, despite their longer lasting energy.

# EXPLANATIONS OF PURCHASE HESITATION

Through my research, I have identified five main reasons consumers hesitate to buy green products, even though they claim to support efforts to improve the environment. These reasons include lower quality than regular products, lack of understanding, higher cost than regular products, lack of availability, and odor/other negative side effect.

## LOWER QUALITY THAN REGULAR PRODUCTS

Many consumers report that they do not feel green products work as well as traditional products. Environmental study Roper's Green Gauge showed that 42% of consumers found green products to be inferior to traditional products in terms of quality.[1] Consumers fear that a product's eco-friendliness may indicate inferior ability to perform its intended task.

In my research collected in order to judge consumers' attitudes towards such matters, consumers were asked to indicate why they do not currently use 'green' products (survey, 16). 33.9% of respondents to this question answered "doesn't work as well as regular products." Not only are consumers recognizing that some green products are inferior in terms of quality, but they are citing this as a specific reason why they are not buying green.

This discrepancy between consumer needs and the market's meeting of those needs poses a complex dilemma. One might come to the conclusion that fixing this problem is simple—pressure producers to make a green product that works better. However, the solution is mostly likely not that simple. While producers should continue to work to develop products with increasing ability to perform, the majority of the responsibility to remedy this problem lies with the consumer. For example, a traditional household cleaner may contain a variety of harmful ingredients including bleach, but eco-friendly cleaners cannot contain many of these ingredients. Many may argue that our American culture has molded us into beings that seek the best and quickest satisfaction. Synthetic ingredients have been developed, tested, and perfected for years to produce the quickest and most effective outcome, something newly-available green products have not yet had the chance to accomplish. As green products spend more time in development, on the market, and in consumers' hands, we should expect a progress in quality. However, a reality that consumers may need to come to terms with is that green ingredients may never produce the exact results that synthetic ingredients do. Most likely, the true solution to this problem is that consumers commit to supporting green products, through the good and the bad. Consumers may have to accept a different-quality product in exchange for a better-quality environment.

## LACK OF UNDERSTANDING

Another road block in gaining widespread support of the green movement is the absence of a standard way to define what in fact makes a product "green."[1] Mintel research director David Lockwood makes it clear when he says, "what's going to mark who's in for the long haul is who's spending the money on education… Not just selling the products but trying to help people make better decisions."[16] As mentioned earlier, the "green" movement should not exist purely to raise producers' profits. "Green" companies consumers should be investing in are the ones who are genuinely concerned for the environment. Investing long-term in the well-being of our environment, and therefore our population, requires educating the consumer on how to sustain the environment, and then offering a product that genuinely does so.

Helping consumers make better decisions also involves the information producers include on product labels. There is one phenomenon in particular that is dramatically affecting the "green" effort in terms of education and trustworthiness from green producers—a notion coined in 1986 by environmentalist Jay Westerveld called "Greenwashing."[17] Greenwashing is a term that refers to the "act of misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service."[18] Westerveld also observed that in instances where he concluded Greenwashing was apparent, companies' intentions were to increase their profit, not truly benefit the environment. He mainly uses the term to apply to companies who spend much more time, effort, and capital to advertise a product or service as being "green," instead of using these resources to actually provide a "green" product or service.[17]

An environmental marketing firm, TerraChoice, conducted an extensive study into Greenwashing practices in the United States, Canada, the United Kingdom, and Australia in November 2008 and January 2009. Researchers were sent out to leading retailers to examine details on the product, claims, and explanatory details on the product, supporting information, and offers of additional information found on the product. In November 2007, the firm published a report entitled The Six Sins of Greenwashing. This study helped consumers, marketers, policymakers, etc. better understand environmental claims. So, in order to "maintain the pressure for truth and clarity in environmental marketing," the firm conducted a second edition of the study—The Seven Sins of Greenwashing. In this study,

2,219 products were examined, with 4,996 claims.[18]

In the past 20 years, green advertisements have increased almost ten-fold; and since 2006 they have almost tripled. This is quite a significant change in advertising trends, so must be monitored carefully. The increase in green advertising indicates that marketers are responding to the increasing demand for environmentally-friendly products, and this is a positive change, however consumers must be made aware of the risk of fraudulent claims.[18]

False and misleading information given in these advertisements has several negative side effects to consumers, producers, and the green marketing effort in general. Good intentions of customers are wasted when they purchase products with false green claims. The consumer's trust is broken, and Greenwashing can lead to a consumer doubt of all "green" claims that can cause customers to give up on and stop buying "green" products all together. Also, companies that participate in Greenwashing will take sales away from their competitors that offer true environmentally-friendly products. Finally, green marketing will lose its power, therefore slowing or preventing the movement and growth towards environmental sustainability.[18]

The first report published by TerraChoice in 2007, The Six Sins of Greenwashing, identified the following six transgressions made by producers.

1. The **"Sin of the Hidden Trade-Off"** describes the suggestion that a product is "green" based on a narrowly-defined characteristic that ignores other characteristics important to the environment.
2. The **"Sin of No Proof"** describes a claim on a product that cannot be easily proven by examining information on the packaging or by a third-party certification.
3. The **"Sin of Vagueness"** describes a claim that is so broad or left undefined that there is a high likelihood that it will be misunderstood by the customer to make the product appear greener than it truly is.
4. The **"Sin of Irrelevance"** describes a claim that may be accurate but is irrelevant to the actual environmental-friendliness of the product.
5. The **"Sin of Lesser of Two Evils"** describes claims that may be truthful but distract the customer from detrimental environmental effects of the product as a whole.
6. The **"Sin of Fibbing"** describes claims that are purely untrue.

After the second study published in 2009, The Seven Sins of Greenwashing, a seventh transgression was identified.
After the 2008/2009 study, researchers identified a seventh transgression.

7. The **"Sin of Worshipping False Labels"** describes the use of a label that provides words or images that mislead consumers to believe the product is supported by a third-party when it is not.[18]

This 2009 study revealed many facts about green advertising in the areas researched. First of all, there were almost twice as many legitimate green claims in 2009 than in 2007 (14% in 2007 to 23% in 2009). This is a very positive step. Also, since the 2007 study, there was a 176% increase in number of "green" products. However, over 98% of the products surveyed committed at least one of the seven sins listed above. The most common products for Greenwashing were children's toys and baby products, cosmetics, and cleaning products.[18]

This predicament is especially obvious in industries that have no national standards for the production, marketing, or selling of eco-friendly products. Cleaning products is one such industry. An example is laundry detergent, for which producers are not required to list ingredients on the labels.[4] Many, if not most, consumers rely on information on a product's label to understand what they are buying, and if this information cannot be relied upon to convey a true and exhaustive list of ingredients and features, consumers are shopping blind.

When consumers were asked in my primary research survey why they do not currently use green products, 41.9% responded with “lack of understanding about the products and/or its ‘green’ claims” (survey, 16). There is a necessity for consumers to be educated on the threats posed (and to be avoided) by products and their green alternatives, but the responsibility to resolve this issue lies mainly with producers and governmental agencies. Producers need to make an effort to build trust and rapport with consumers, publish truthful ingredients on their labels, and commit to honesty in their advertising.

Another step to purchasing green even without proper labeling is to buy the products with the most information on the label. In the instance of laundry detergents, many new eco-friendly varieties do, in fact, include a list of ingredients on their labels. Many consumers believe a brand that does include ingredients on its label has less to hide. It seems reasonable to believe that a truly eco-friendly detergent would have no problem listing their eco-friendly ingredients to potential customers. So, consumers should seek out the products that are least afraid to report to the public just what is in their product. Competitive pressure from brands that disclose their ingredients could lead other brands to follow suit.[4]

To aid in this process, governmental agencies should develop a national standard by which green producers of different varieties should be made to label their products. Independent third-party firms can help enforce these standards. This will help consumers make a more informed decision when buying green. In addition, it will force producers to compete on a standardized level, hopefully weeding out the half-hearted “green bandwagon” producers, leaving the marketplace with the tried and true products that will truly make a difference in the environment.

## HIGHER COST THAN REGULAR PRODUCTS

Market research firm Mintel reported 66% of consumers do not buy green products based on their price.[16] This substantiates my survey’s findings. When asked why they did not currently use “green” products, 67.7% of respondents cited “price as compared to other products,” making price the number one deterrent for buying green (survey, 16). For all three product categories examined in my market research—produce, laundry detergent, and lightbulbs—price was consistently higher on products identified as “green.” But, how much is too much? My survey asked consumers if they were willing to pay any more money for a green product than a comparable regular product (survey, 14). 56.1% of respondents replied “yes,” while the remaining 43.9% replied “no.” This response is particularly disconcerting considering the price data recorded in the four retail stores examined for this research. Almost half of the respondents to this survey question would not pay any additional money for a green product. My survey followed with a question to those respondents who claimed they would pay more for a green product. When asked, “How much more than a regular product are you willing to pay for a comparable “green” product?” 71.7% said just 10% more, 24.5% said 25% more, and only 3.8% said 50% more (survey, 15). No respondent was willing to pay over 50% more for a green product than its regular version.

In order to combat this detrimental barrier and reach out to these consumers, education is key. Producers and marketers should strive to inform consumers of the risks posed to the environment if the United States does not change their buying patterns. In addition, producers and marketers should educate the public on specific origins of these higher costs. There are many substantial reasons for the often extreme price gaps between traditional products and a green alternative. For instance, organic produce simply costs more money to harvest. Another explanation is that green products do not yet have the market share to allow for lower prices. Basic economic principles such as economies of scale dictate higher prices for small businesses. Much of this can be alleviated in the future by continued consumer support. The greater profit a smaller company brings in and the greater market share achieved, the more capable they will be to charge lower prices (theoretically, at least).

Below is an analysis of the prices of eco-friendly light bulbs, produce, and laundry detergent in the four retail outlets examined in my research.

Below is an analysis of the prices of eco-friendly light bulbs, produce, and laundry detergent in the four retail outlets examined in my research.

## LIGHT BULBS

**Combined Light Bulb Prices***

(in dollars)

| | Incandescent | CFL | Incandescent | CFL |
|---|---|---|---|---|
| **Home Depot** | .37 | 1.73 | .35 | .23 |
| **Walmart** | .36 | 1.80 | .46 | .27 |
| **Target** | .31 | 2.56 | .39 | .34 |
| **Total Average** | .35 | 2.03 | .40 | .28 |

TABLE 22

*All prices are for 60 watt bulbs. Calculations are based on data taken from specific, objectively-chosen light bulbs from the stores specified. These prices are not an average of the price of all light bulbs offered at that store.

These calculations show that consistently, within each store represented, the CFL light bulbs considered cost more per individual bulb (on average) than the incandescent bulbs considered. (The CFL bulbs cost 480% more per individual bulb than incandescents on average throughout the three stores.) And consistently, within each store represented, the CFL light bulbs considered cost less per year (on average) than the incandescent bulbs considered. (The CFL bulbs cost 42.9% less per year than incandescents on average throughout the three stores.)

On average, the incandescent bulbs considered cost 14.3% more per year than they do per individual bulb. In addition, on average, the CFL bulbs considered cost 625% less per year than they do per individual bulb.

## PRODUCE

**Combined Produce Prices***

| | Average extra cost for buying organic vs. traditional produce |
|---|---|
| **Star Market** | 38% |
| **Walmart** | 42.75% |
| **Target** | 55% |
| **Total Average** | 45.25% |

TABLE 23

*Percents taken as an average of extra cost between each pair of traditional and organic produce examined in research. Calculations are based on data taken from specific, objectively-chosen produce pairs from the stores specified. These percentages are not an average of the extra cost between all organic and traditional produce pairs offered at that store.

These calculations show that consistently, within each store represented, the organic produce costs more than its traditional equivalent.

**Combined Baby Carrot Prices***

(in dollars)

| | Traditional | Organic | Extra cost for buying organic vs. traditional |
|---|---|---|---|
| **Star Market** | 1.39 | 1.99 | 43.2% |
| **Walmart** | 1.49 | 1.94 | 30.2% |
| **Target** | 1.50 | 1.65 | 10% |
| **Total Average** | 1.46 | 1.86 | 27.8% |

TABLE 24

*These prices are for 1 lb. bagged mini peeled/baby carrots. Some brand variation does occur between stores.

These calculations show that consistently, within each store represented, the organic baby carrots cost more than the traditional baby carrots. Star Market, the smallest and local grocery store, represents the store with the largest gap in cost of traditional baby carrots and cost of organic baby carrots with organic costing 43.2% more than traditional. Target represents the store with the smallest gap in cost of traditional baby carrots and organic baby carrots with organic costing 10% more than traditional. Finally, Walmart rests between these two retailers with organic baby carrots costing 30.2% more than traditional baby carrots.

## LAUNDRY DETERGENT

**Combined Claims on Laundry Detergent Bottle Exteriors**

| | Average number of claims per store examined |
|---|---|
| Phosphate-free | 5 |
| Recyclable | 5 |
| Safe for septic tanks | 3.67 |
| Biodegradable | 3.67 |
| **Dye-free** | **2** |
| **Fragrance-free** | **1** |
| **Natural Extracts** | **1.33** |
| **Natural/Plant-derived cleaning agents** | **2** |
| **Better for environment** | **.67** |
| **Plant-based surfactants** | **.33** |
| **Non-animal derived cleaning agents** | **.33** |
| **x% natural** | **.67** |

TABLE 25

Since there is no standard method to identifying which laundry detergents are truly green, it is difficult to rank or divide detergents by "eco-friendliness." And, although there is also no guarantee that the claims cited on detergent bottles are in fact true, I attempted to use these claims to unofficially distinguish the "eco-friendly" detergents from the traditional ones. So, based on the 12

different claims found on the detergent bottles examined in the three chosen stores, the above table illustrates the average number of times per store each claim was cited on a bottle exterior. Based on the assumption that not all detergents are identified as "green," one would assume that the detergents that cited the least common claims were distinct in some way. Six subjectively chosen detergent variations were examined in each store, so I thought it fitting to distinguish the claims that were cited 3 times or less from those cited 3 times or more. Those eight claims mentioned 3 times or less are distinguished in the above table. The remaining four claims—"phosphate-free," "recyclable," "safe for septic tanks," and "biodegradable"—were mentioned (on average) more than 50% of the time per store, therefore I assumed them to be too common and meaningless in terms of eco-friendliness.

Next, to divide specific detergents based on the claims they mention, the following table ranks the detergents examined by the number of these eight unofficial "environmentally-friendlier" claims cited on their bottle exteriors.

**Number of "Environmentally-Friendlier" Claims on Bottle Exterior**

| Product | Claims per bottle |
|---|---|
| **Ultra Purex Natural Elements** | **4** |
| **Green Works** | **3** |
| **Sunburst Free & Clear** | **4** |
| ValuTime | 0 |
| Gain 2x Ultra | 0 |
| Food Club Supreme Clean 2x | 0 |
| Ultra Purex | 0 |
| Cheer Bright Clean, Free & Gentle, 2x Concentrated | 1 |
| Sun Burst 2x Double Concentrated | 0 |
| Great Value 2x Concentrated | 0 |
| Tide 2x Ultra Free and Clear | 1 |
| **Seventh Generation** | **3** |
| Method | 1 |
| Up & Up | 0 |
| Tide 2x Ultra | 0 |
| Arm & Hammer 2x Concentrated | 0 |
| All 2 Ultra | 0 |

TABLE 26

In order to rank detergents by price, the individual detergents must then be divided by "environmental-friendliness." To do this, I separated the detergents that had 3 or more of these eight "environmentally-friendlier" claims and compared their average prices per load (see tables 6, 9, 16) to those detergents that had less than 3 of these eight claims.

The results are as follows.

**Prices of Detergents Based on "Environmental-Friendlier" Claims**

(in dollars)

| | Average price per 32 oz. bottle | Average price per load |
|---|---|---|
| **Detergents citing 3 or more "environmentally-friendlier" claims** | 3.88 | .154 |
| **Detergents citing less than 3 "environmentally-friendlier" claims** | 3.08 | .143 |

TABLE 27

Based on this unofficial method of distinguishing environmentally-friendly laundry detergents from traditional detergents, varieties citing three or more "environmentally-friendlier" claims cost more per bottle than those citing three or less claims (on average, 26.4% more). In addition, detergents citing three or more "environmentally-friendlier" claims cost more per load than those citing three or less claims (on average, 7.7% more).

## LACK OF AVAILABILITY

Finally, many consumers do not buy environmentally-friendly products because green products simply are not available. Within my survey, when asked why they did not buy "green" products, 29% of consumers responded with "lack of availability" (survey, 16). This opens up a large opportunity for both manufacturers and retailers to step up their availability of green products. Since green products have not yet gained widespread support by American consumers, many retailers may find it financially detrimental to carry very many green products. Manufacturers and retailers will only supply and sell products that are in demand. Therefore, it seems logical to think that the more green products consumers buy, the more green products retailers will offer.

Below is an analysis of the availability of eco-friendly light bulbs, produce, and laundry detergent in the four retail outlets examined in my research.

**Availability of "Environmentally Friendly" Products***

| | Home Depot | Star Market | Walmart | Target | Average (per product category) |
|---|---|---|---|---|---|
| **Light bulbs** | 72.95% | n/a | 61.5% | 63.8% | 66.08% |
| **Produce** | n/a | 1.04% | 7.69% | 13.0% | 7.24% |
| **Laundry Detergent** | n/a | 7.49% | 11.5% | 13.8% | 10.93% |
| **Average (per store)** | 72.95% | 4.27% | 26.9% | 30.2% | 35.63% |

TABLE 28

*Availability represents the percent of products in the product category that present claims of environmental friendliness on the package exterior. The guidelines used in this research for identifying a product that presents claims of environmental friendliness are as follows: produce—USDA Organic seal presented on packaging exterior; light bulbs—claims resembling "lasts longer," "CFL," "saves energy," etc.; laundry detergent—claims resembling "natural ingredients," "free and clear," "plant-based surfactants," etc.

Based on these calculations, Home Depot has the largest availability of environmentally-friendly light bulbs (as compared to Walmart and Target). Target, compared to Walmart and Star Market, has the largest availability of organic produce and eco-friendly laundry detergent. Star Market has the lowest availability on both product categories examined in that store—produce and laundry detergent. Within the product categories, light bulbs hold the highest average availability, while organic produce holds the lowest. These findings show the opportunities for producers and retailers to boost availability and perhaps sales. The produce industry has much opportunity for growth in organic availability, as well as laundry detergent. In addition, small, local grocery store Star Market's numbers are the lowest, leaving a large opportunity for growth in availability of organic produce and green laundry detergent.

## ODOR/OTHER NEGATIVE SIDE EFFECTS

Finally, 8.1% of respondents cited "odor/other negative side effect" as why they do not purchase green products (survey, 16). This would include aspects of green products such as additional dangers posed by CFL light bulbs as discussed above, unusual size or shape of organic produce, and atypical scents of eco-friendly laundry detergent due to the use of natural rather than synthetic ingredients. These side effects are mainly issues that the consumer must learn to accept as most of these are results inseparable from the eco-friendly nature of the product. Producers should make efforts to alleviate these inconveniences as best as possible. However, most of these side effects are ones that can and should be expected to work themselves out with time as producers learn more about the manufacturing process of these products. Continued customer support is a necessity.

# COURSES OF ACTION

Through this research, I have identified several concrete explanations, as examined above, for this rift between consumer-reported support of green products and actual sales of green products. Within these rationales, there are numerous courses of action that should be taken by consumers, producers, and marketers to help alleviate consumer reluctance to buy green.

## EDUCATION

Producers and marketers should work to educate their customers on their eco-friendly products. This includes information about the product—ingredients, benefits, aspects to look out for, etc. Also, due to consumers' concern about issues such as price, quality, and side effects, producers and marketers should both work to educate consumers on reasons for these issues and ways to improve upon and avoid these. In addition to information on green products, consumers should be educated on environmental issues. Third-party, nonbiased environmental advocates as well as producers and marketers have a responsibility to clue in consumers on what threats are present in the environment and the actions that can be taken to improve the well-being of our environment.

On the same note, consumers must work to educate themselves on these products and their backgrounds. Consumers know what they want in a product and have to be willing to put forth the effort to determine what green products can best meet their needs. Consumers should also do their part in staying educated about environmental dangers that they can help alleviate with environmentally-conscious living as well as their buying patterns.

# TRUTHFULNESS

Producers and marketers should ensure that their product labeling and advertisement is honest. Consumers are vulnerable in that many eco-friendly products are new to the market and relatively unknown, therefore consumers know there is a risk of being taken advantage of by marketing. Much of this can be avoided by consumer education, but marketers must work extra hard to ensure that consumers can trust their product, their brand, and their company as a whole. Third-party investigation and approval would greatly help consumers to know that the product in question performs in concordance with its claims. If a product is approved by a recognized third-party environmental advocate company, consumers would have a greater trust in that product and its eco-friendliness. Local and national governments can affect truthfulness of green claims by passing legislation aimed at green producers. For instance, there is very little doubt over whether or not produce labeled “organic” is truly organic due to the strict guidelines a producer must satisfy in order to gain the official “USDA Organic” seal. However, there is much more consumer doubt regarding laundry detergent claims of eco-friendliness as a result of the lack of guidelines required for detergent producers.

Consumers also have a role to play in keeping producers and marketers accountable for their claims of eco-friendliness. If consumers take a short period of time to check up on the claims made on these products, they may be able to verify for themselves as to whether or not a claim is truthful. The public must remain knowledgeable on green products and processes in order to put a healthy amount of pressure on producers and marketers.

# QUALITY

Producers must strive to generate high-quality green products. As previously discussed, many attributes related to quality are directly affected by limitations of ingredients or manufacturing processes in order to produce an eco-friendly product. However, keeping in mind that consumers recognize a lower quality in many green products and hesitate to buy these products because of this, producers must work to satisfy these customers. Many improvements have been made to green products over the past few years as producers learn more about the manufacturing process, etc. However, many customers have written off some green products because of lower quality. As improvements are made, producers and marketers must strive to overpower this customer bias and reposition their product and brand in the consumers’ minds.

Similarly, consumers must remain patient with producers as green products become more prevalent in the modern market. They must understand the limitations of quality as posed by restricted ingredients and production methods. As mentioned, many of these improvements will continue to be made as eco-friendly products become more popular, but continued consumer support is a necessity to keep these companies in business so that they may learn more about their product and processes.

# PRICE

Price is a major concern in the minds of potential green customers. Similarly to above, producers, marketers, and consumers all have a role to play in this issue. Producers should work to keep their production, shipping, packaging, etc. costs down as much as possible to provide a low end-price to consumers. However, prices of most green products are inherently higher due to higher costs and considerations throughout the production process. As green products become more popular, certain aspects of this process should become less expensive, and prices should decrease. It is important for consumers to be made aware of why these high prices are present in the market, however, continued consumer support is critical as the green market grows.

# ORIGINAL ADVERTISEMENTS/DESIGNS

Based on the secondary and primary research analyzed during this project, I created three original designs for the three product categories I focused on—laundry detergent, light bulbs, and produce. These designs attempt to learn from the mistakes and weaknesses green marketing and products presently hold. Taking the consumers' attitudes and concerns into consideration and redefining green marketing to reflect gaps in green marketing as it currently exists would hopefully improve consumers' trust and loyalty to green products, therefore boosting green sales. This would benefit producers, marketers, and consumers—not to mention the priceless benefit to the environment. The green marketing movement must take the consumer's attitudes into consideration in order to truly penetrate the American market and gain the support and sales volume needed to truly and aggressively impact our environment before it's too late.

## EARTHACTIVE

EarthActive is an organization I created for the purpose of this project. It would function as a third-party organization that could be trusted by consumers to provide accurate information regarding green products and marketing. The organization would educate consumers on green marketing practices, what factors consumers should look for in green products, and general news and information on environmental issues. EarthActive would research products on the market and give consumers a reading of certain products true environmental-friendliness. Not only would the organization support and reward a company for being truly green, but it would also distinguish false green claims, products, and companies. Ideally, producers, aware of the impact that EarthActive support or lack there of may make on their product's appeal to green shoppers, would strive to meet the organization's standards. EarthActive would make the consumer's job easier in the marketplace by being a trusted and reliable source of green information and product facts.


## LAUNDRY DETERGENT

This advertisement is a point-of-purchase display for an unidentified green laundry detergent. Not only does it show EarthActive's support for this brand, but It serves as an educational display for consumers searching for an eco-friendly laundry detergent. The design is bold and eye-catching—an oversized laundry detergent bottle. The colors chosen for the design are natural yet vivid— a rich green and deep yellow. There are five shelves that will hold the detergent bottles. The area in the display that represents the negative space of the giant bottle's handle is the focal point of the design. The area is made to look like a leaf, with a faint leaf vein down the middle. This area houses educational facts about green laundry detergent. These facts serve to address one of the main concerns consumer's face with laundry detergent—accurate green claims. This display shows consumers what to look for in green laundry detergent, calming some of the anxiety they may have regarding these products.


earthactive

# Is my detergent eco-friendly?

Here are a few things you should look for in a detergent that is safer for the environment

- no synthetic dyes or fragrances
- no anionic surfactants
- no bleach

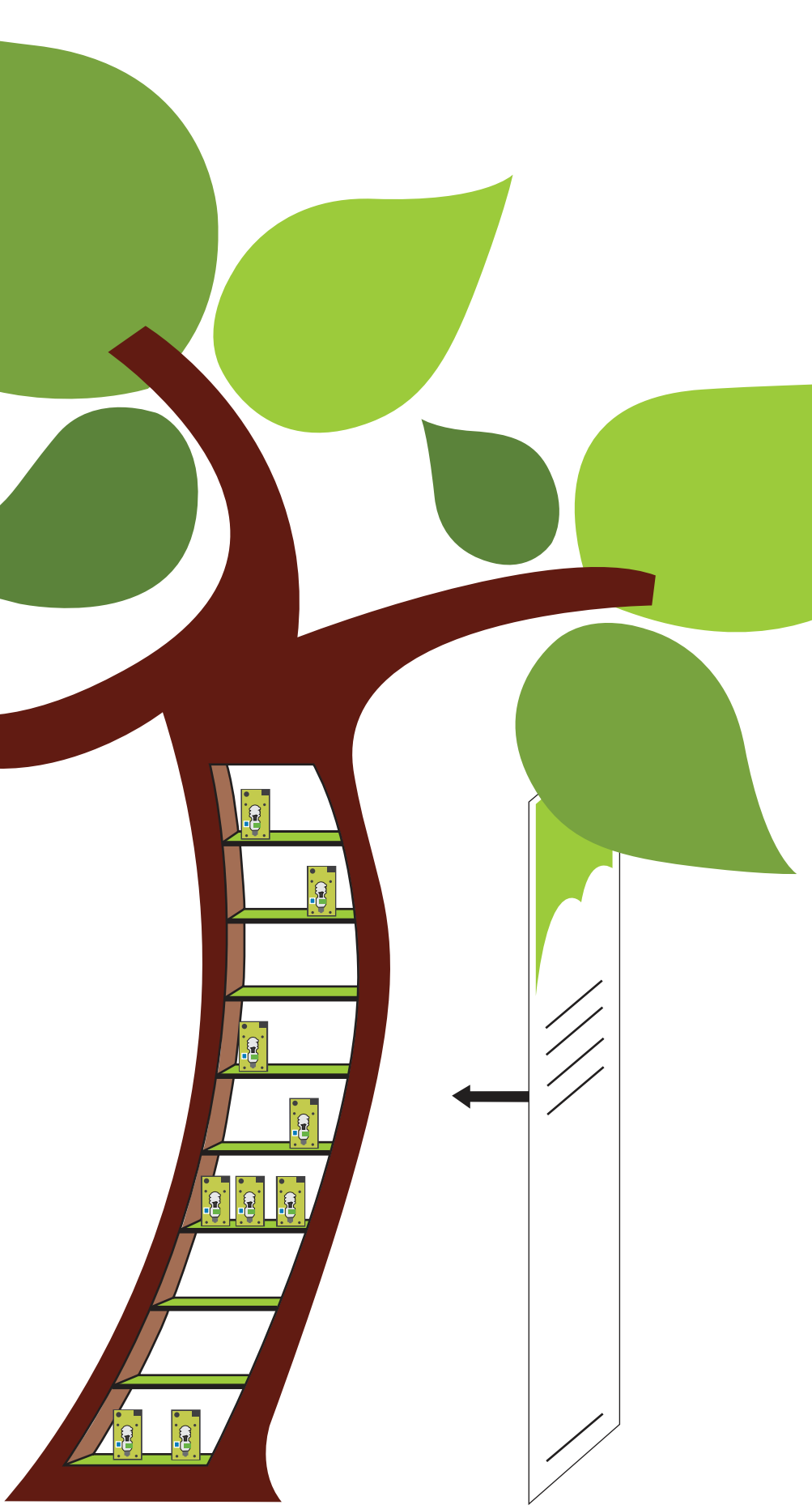
Buy detergents with the most information on the label. Those brands have nothing to hide!

# LIGHT BULBS

This point-of-purchase display is for an unidentified compact fluorescent light bulb. The display shows Earth-Active's support for the brand and gives educational facts about CFL bulbs. The design is big, bright, and confident—an idealized tree shape. The trunk provides space for nine shelves that would house the light bulb packages and the leaves provide space for text. The EarthActive logo is on one leaf, whited-out for contrast and visibility, and a brief catchphrase and sentence about CFLs is on an adjacent leaf. The design would be two-sided, with a mirror image of the design on the backside, and the shelves running all the way through both sides. On the sides of the design are two panels (both the same) with educational information about CFLs. The panel features organic shapes mimicking the colors, shapes, and feel in the leaves on the front of the design. Information regarding energy savings and monetary savings address real concerns consumers have regarding CFLs.

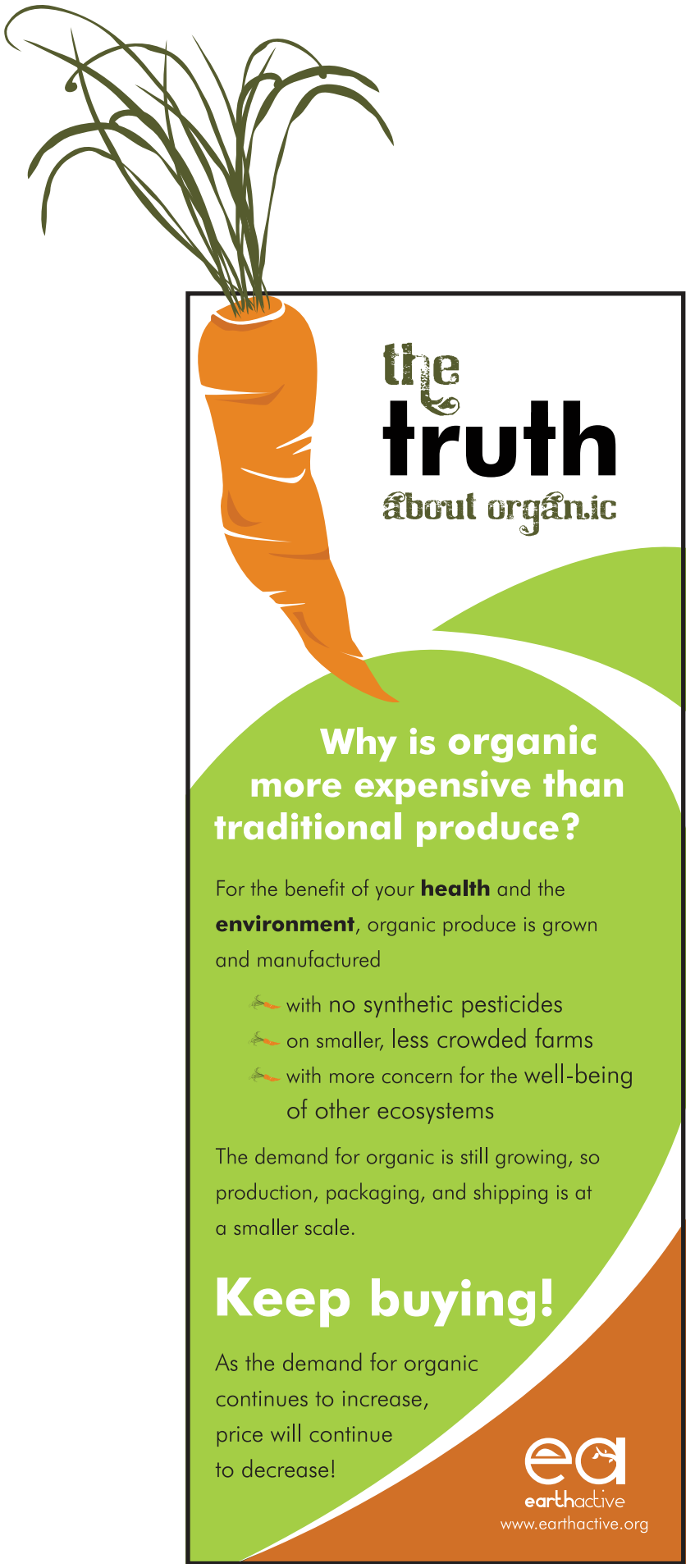
# ENERGY DOESN'T GROW ON TREES

By using less energy, CFLs can save you money and help save our environment!



# PRODUCE

This advertisement is a stand-alone poster for organic produce as a general product category. The poster design is bright and clean. There is an over-sized carrot at the top of the design to bring color and an illustrative representation of the produce the poster discusses. The green shoots coming out the top of the carrot hang off the top of the poster, deviating from the rectangular frame. The background of the poster is plain white, bright green, and orange to match the carrot. The bright green area is cut by a dynamic white line that goes off the poster and curves back to reenter the image to separate the green from orange. The line gives the green area the appearance of a hill or crop, to go along with the organic produce subject matter. The carrot draws the viewer's eye down from the top left corner, through the heading of the poster, and points to the question the heads the education section of the poster. Then, the white line guides the viewer's eye through the educational points and down to the bottom of the piece, where the final remarks are made and the EarthActive logo is positioned. The educational section addresses one of the main concerns about organic produce—its high price compared to traditional produce. The poster provides some reasoning behind the higher prices and encourages consumers to continue to buy produce as a body of green shoppers, despite the higher price.



# CONCLUDING REMARKS

Overall, genuine support and concern for the environment is the key to the success of the green movement. Producers should be internally driven to provide a legitimate green product to consumers, not for the sole purpose of profit, but for the larger purpose of changing, preventing, delaying, and reducing damage to the environment. Furthermore, genuine consumer support of the green movement is essential to its growth. Customers should be motivated to seek out products that will truly help the environment and support these companies as they grow.

Finally, change is crucial to ignite the green movement—a change in attitudes, buying patterns, production habits, and marketing practices. "Redefining Green" must occur for producers, marketers, and consumers as we work together to protect the well-being and longevity of our environment.

earthactive

# INDEX OF TABLES

26. Number of “Environmentally-Friendlier” Claims on Bottle Exterior
27. Prices of Detergents based on “Environmentally-Friendlier” Claims
28. Availability of “Environmentally Friendly” Products*

# ENDNOTES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