

► **Keurig and Sustainability**



► “Are the K-cups Recyclable?”

- Green Mountain is currently looking for a solution to recycle the K-cups.
- Water Conservation
 - Over 30% of the coffee brewed using conventional brewers is poured down the drain.
- Energy Savings
 - The Keurig brewer uses the equivalent of a 60 watt bulb, far less energy than conventional brewers.



► Socially responsible buying criteria



- Green Mountain Coffee Roasters is a socially responsible business
 - Leader in Fair Trade Certified™ organic coffees
 - 5% of their pretax income is invested in social and environmental projects
 - “200 Best Small Companies in America”
 - “100 Best Corporate Citizens”
 - Ranked number 1 for the past two years
 - “Best Medium Companies to Work for in America”



Office DEPOT.



Protecting the Environment

Sustainable Packaging: K-Cups

The Keurig® Single-Cup Brewer has been well received by coffee drinkers at work and at home and has driven major growth for us for more than 5 years. As Keurig® brewing system grows in popularity, we know the environmental impact of the K-Cup® waste stream is one of the most significant challenges we face.

There are three elements within the K-Cup® -- the cup itself, a layer of filter paper and an aluminum foil top. The polyethylene coating of the filter and foil -- as well as the process of heat-sealing the various elements -- makes recycling difficult. However, this packaging approach prevents oxygen, light and moisture from degrading the coffee. Without the barrier the packaging materials provide, we could not maintain the quality and freshness of the coffee, which means that all the resources and effort put into growing and roasting great coffee would be wasted.

Finding a more sustainable approach to this packaging challenge is a big priority for us. Life-cycle analysis is one tool for meeting this challenge. Life-cycle analysis looks at the total energy and materials used throughout the entire life of a product and can sometimes lead to counter-intuitive conclusions about a product's environmental impact. For example, in a study by a European company on milk, it was discovered that if a one-gallon bulk container was used instead of four separate quart containers, and if 5 percent of the milk was wasted or spoiled, the total environmental impact was greater with the gallon container than it would have been with the four quarts. So how is this relevant to coffee? We don't yet understand the life cycle analysis of coffee or of the K-Cup®. However, the milk analysis raises the possibility that single-serve products can waste less energy and natural resources than larger bulk products over the course of their life cycle. The Keurig system, because it is in a single-serve format, creates a greater likelihood that the entire product will be consumed. Therefore, the Keurig system offers a great opportunity for deeper research to understand the relative impact of bulk vs. single-serve packaging. Regardless of the conclusions of life-cycle analysis, we remain committed to finding more sustainable packaging for all our coffee products.

We are actively working to mitigate the impact of the K-Cup in a few different ways. First, we are actively researching alternatives to the petroleum-based materials that make up the K-Cup. One alternative is bio-polymers, which are made from substances like corn. Although the cup wouldn't necessarily be recyclable it would then be made from a renewable resource and be more sustainable than the existing cup we now use. Second, we try to offset the negative impacts of the K-Cup by linking the K-Cups to our Fair Trade Certified™ and organic coffees, which are often our [most sustainable sourced coffees](#). Finally, we are looking into the feasibility of sponsoring life-cycle analysis of our main coffee packaging – K-Cups and our 10 oz. / 12 oz. bags – to help us better understand the impact of our packaging choices.



Environmental Statement

The challenge of protecting the freshness of roasted coffee while using environmentally friendly packaging is one that both Keurig and the coffee industry are committed to overcoming.

The K-Cup™ is constructed from materials that insure that the ground arabica coffee is protected from humidity, oxygen and light which accelerate the staling process. The outer barrier is a combination of a multi-layer plastic cup material and a foil laminated plastic lid. This form of packaging is also used for other single-portion products like salad dressings, sauces and butter. Due to the size of the package it is not currently economically feasible to separate the components of the K-Cup after use. Accordingly, there are no federal government regulations requiring recycling of this type and size of packaging.

There are other environmental issues surrounding the brewing of coffee that have allowed Keurig® to actively support a better environment. The Keurig system does not waste water because coffee is brewed one cup at a time. Glass pots and thermal carafes use water for brewing coffee by the pot which is often disposed of as waste after the coffee cools. In addition, detergents that are used in offices to clean glass pot and thermal carafe systems can contaminate our waterways. Finally, in order to sanitize glass pots and air-pots, many office coffee distributors soak them in acid baths, which are harmful to our waterways. Keurig recommends natural citric acid for all cleaning procedures and the Keurig system requires less frequent cleaning than traditional glass pot and thermal carafe systems.

Keurig continues to seek environmentally friendly options for packaging and marketing its K-Cups. The non-bleached filter paper used in the K-Cup to provide an optimal taste profile is based on an environmentally friendly production process. Recyclable materials are used for the packaging of its 25 count boxes, master shipping cartons, and sales and marketing materials.

Keurig partners with only high quality roaster partners, many of whom support environmentally conscious planting, growing and harvesting practices including, but not limited to, organic and shade grown coffees.

Keurig is committed to continuous improvement relative to the environmental impact of our products and the way we do business, and we welcome your suggestions.

K-CUP® ENVIRONMENTAL MESSAGE

8.30.07

As Keurig® Single-Cup brewing systems grow in popularity, the environmental impact of the K-Cup® waste stream is one of the most significant environmental challenges we face.

There are three packaging elements within the K-Cup -- the cup itself, a layer of filter paper and an aluminum foil top. The polyethylene coating of the filter and foil -- as well as the process of heat-sealing the various elements -- prevents oxygen, light and moisture from degrading the coffee and spoiling the product. Without the barrier these materials provide, we could not maintain the quality and freshness of the coffee in the K-Cups, which means that all the resources and effort put into growing and roasting great coffee would be wasted.

From a disposal perspective, however, the packaging is not as advantageous. The heat-sealing makes it difficult to separate the K-Cup into individual components after use. Further, in most markets today, it is unlikely that any of these three materials would be recyclable in their original forms. These issues effectively rule out the possibility of recycling used K-Cups.

Finding a more sustainable approach to this packaging challenge is a big priority for us, as is developing a better understanding of the product's environmental performance over the course of its lifespan.

Life cycle analysis provides a method of comparing the environmental performance of a product or service throughout its life: from raw material production, to manufacturing, distribution, use, disposal, and all intervening transportation steps. This holistic assessment can sometimes lead to counter-intuitive results. For example, a recent study compared the environmental performance of a one-gallon bulk milk container to using four individual quarts. One might think that bulk packaging would be environmentally preferable because it provides the most product in the least amount of packaging. However, the study found that if five percent of the milk in the bulk container was wasted or spoiled, it would have been environmentally preferable to package the milk in four individual quarts.

So how is this relevant to coffee? We don't yet understand the life cycle analysis of the K-Cup as it compares to traditional coffee packaging. However, the above analysis raises the possibility that single-serve products can save energy and natural resources when compared to larger bulk products, if using single-serve products means that less of the product goes to waste. This certainly doesn't lessen our commitment to finding more sustainable packaging, but the theory has made for some interesting discussion here. At this time we intend to do a life cycle analysis of the K-Cup and our 10/12-ounce bag as we strive to better understand the environmental impact of our coffee packaging.

We are working to improve the environmental characteristics of the K-Cup system itself, as well as mitigate its impact. We are actively researching alternatives to the petroleum-based materials that make up the K-Cup. One alternative is bio-polymers, which are made from substances like corn. Although the cup wouldn't necessarily be recyclable it would then be made from a renewable resource and be more sustainable than the existing cup we now use. We also offer a reusable K-Cup that is filled by the consumer, easily cleaned, and compatible with all Keurig home brewers, with the exception of the original B100. We also try to compensate for the negative impacts of the K-Cup by linking the K-Cups to our Fair Trade Certified coffees, which are often our most sustainably sourced coffees.

We are looking at ways to improve all of our coffee packaging, while still maintaining the freshness and quality that consumers have come to expect from Green Mountain Coffee Roasters. We have made some strides in this area. In June of last year, we launched the first

all-natural hot beverage paper cups. This revolutionary eco-friendly cup is lined with a bio-plastic made from corn, making it the only hot beverage cup made from fully renewable materials.

We are making progress and are working to continue to bring new, more sustainable solutions to the market. We appreciate your ongoing support of our coffees and our company, which allows us to explore and invest in creative answers to these environmental challenges.

If you have specific thoughts or feedback please feel free to contact your sales representative or Paul Comey at paul.comey@gmcr.com or 802 882 2137.