

New Recipe Development for Filled Chocolates Using Water-based Fillings

Beni Sauter, Peter Storm, Peter Blakeman

Karma Candy Inc.

Karma Candy Inc is a manufacturing specialist in hard candy and chocolate confectionary products. The company supplies some of the most recognizable companies in Canada with high quality products on a contract manufacturing basis. The company must continually work to develop innovative and high quality products to present to its customers to maintain their competitive advantage over offshore alternatives.

Within the several departments of Karma Candy Inc, the shelling lines are an important focal point. Karma Candy can offer a wide range of filled chocolate products that are popular in the market, including caramel, peanut butter and fondant fillings.



Product Interest

Customers have expressed interest in new filled chocolate products. These customers are primarily large retail organizations in Canada and the US with strong private label branding programs, who wish to compete with national brand products in premium categories. Contacts have also been established with overseas distributors interested in uniquely Canadian products for export to countries such as Japan.

Karma Candy Inc. has existing business relationships with many accounts that would be interested (and have already expressed interest).

Opportunity

Recently, international consumers have shown a desire for filled chocolates with a Canadian flavor, such as ice wine or maple. Karma Candy is interested in differentiating its product line to meet these needs.



Production & Recipe Development

Karma Candy Inc currently holds the capability and technology to produce a variety of high quality filled chocolates, including caramel, peanut butter and fondant fillings. Market demands are indicating a need for truffle based fillings that have a light, superior taste that does not compromise the minimum six month shelf life needed for commercialization. Additionally Karma Candy has the technology to wrap and process high yields of this new product.

Traditional truffle recipes include an ingredient base made of half cream and half chocolate, where these ingredients significantly decrease the shelf life of the truffles. Additionally the use of regional ingredients such as ice wine and maple flavouring alters the viscosity and texture profile.

An innovative and scientific recipe is needed with a high degree of urgency to meet industry needs, open opportunities in both domestic and international markets, and maintain the company's local manufacturing and competitive advantage.

Niagara College has an accomplished culinary institute with its faculty possessing a high degree of knowledge in pastries and confections. Although Niagara College has a large student body to support research, the culinary institute's facilities does not contain the appropriate technology to support industrial and commercial research and testing.

Current Clientele

Karma Candy is one of North America's largest contract manufacturers of branded and premium private label confectionery products. Karma Candy's client base includes some of the largest national and international retailers and confectionery companies. Current clients have requested this innovative product that currently cannot mass produced.

Karma Candy's current business strategy is in contract manufacturing. As an alternative to increase market share, the company has also looked at the option of marketing a new premium product under its own label.

Many domestic and international markets have approached Karma Candy to produce high quality truffles with regional flavourings. The timeliest route for commercialization would come in the form of a proprietary product offered by Karma Candy as a signature product for clients abroad.



Potential Challenges

A number of issues exist with these new high demand flavours, including the viscosity of the liquid filling as well as the possibility of a limited shelf life (in comparison to Karma Candy's more traditional products). It is important that new recipes take these criteria into account, while not compromising the taste and texture of the product. In order to further develop truffle products, Karma Candy will require recipe and product development for which it currently does not have expertise. It is looking to Niagara College to provide this expertise.

As the market demand continues to increase, there is an urgency to which the company's customer base is looking for the Karma to increase its capability. Traditionally, Karma Candy developed chocolates for the seasonal market, including major holidays such as Valentine's Day, Halloween and Christmas. By expanding its product line to include everyday chocolates, the company would not only increase profits, but also plant efficiencies.

Next Steps

Karma Candy has already made the investments in the mold and equipment required to produce and package this product. Pilot samples will be developed and sensory assessments will be completed to determine the correct attributes. Once acceptable products have been developed, samples will be taken to selected customers to sample and gather feedback and possible modifications for acceptance in a private label format. Once accepted, Karma Candy has an ongoing new product development process that will take the product to a finished good item.

The likeliest route to commercial application is through a private label format, as the retail organization will develop the brand and market the product to their customers.

Acknowledgements

Thank you to Greg Merlihan and Mary Franco of Karma Candy Inc for their continued interest and assistance with this research project.