Color is an important component of many new product introductions and innovations. This paper will offer a general discussion of food colors, the psychology and emotions associated with color and recent marketing trends relating to the use of food color.

Before we discuss the trends associated with the use of color in new product development, we first need a basic understanding about food colors. The Food and Drug Administration (FDA) defines a color additive as any dye, pigment or other substance capable of coloring a food, drug, cosmetic or any part of the human body. Each classification of color additives is highly regulated and must comply with the specifications outlined in the Code of Federal Regulations (CFR), Title 21, Sections 70–82.

In the U.S., the FDA classifies food color into two categories, those that are “certified” and those that are “exempt from certification.”

CERTIFIED COLORS
In the certified category there are seven synthetic colors permitted for use in food: FD&C Red #40, FD&C Red #3, FD&C Yellow #5, FD&C Yellow #6, FD&C Blue #1, FD&C Blue #2 and FD&C Green #3. Every batch of color produced for use in food products must meet the specifications outlined in the CFR and must be sent to the FDA for analysis and certification. The manufacturer is prohibited from the use or sale of the batch of color in any fashion until final certification is achieved. The FDA assesses $0.30 per pound to the manufacturer for this analytical service. Once the testing is complete, an FDA lot number is assigned and a Certificate of Analysis is issued under the manufacturer’s name with a complete listing of the analytical test results.

There are two types of certified food colors. It is imperative to understand the difference between the two when beginning the process of developing a new product or an innovative product extension. The two types of certified colors are FD&C dyes and FD&C lakes.

Dyes
Dyes are the water-soluble form of each of the colorants. They manifest their color by being dissolved. They are most soluble in water but they are also soluble in other carriers such as glycerine and propylene glycol. However, please note that they have different solubility limits in each solvent.