In my view, confectionery can be broken down into two basic types: fat-based confections and syrup-based confections.

**FAT-BASED CONFECTIONS**

In fat-based confections, the glue that holds the confection together is fat, into which is mixed a whole variety of ingredients, including sugar, bound together by the fat. These are technically called fat-phase confections. In order to understand the technology of these products, it is important to understand the properties of the fat — its melting characteristics, mouthfeel, etc. — the nature of the particles mixed into it and their contribution to taste, texture and the rheology of the confection.

Chocolate is the most important example of this type of confection and a major part of our industry. Compound coatings and nut pastes, such as peanut butter, are also fat-based confections, some examples of which are shown in Figure 1.

**SYRUP-BASED CONFECTIONS**

Syrup-based confections range widely from hard candy to soft marshmallows. In these confections, syrup is the glue which holds the confection together, i.e., they are all syrup-phase confections. The structure, composition and properties of the syrup have to be understood when dealing with the technology of syrup-based confections. The interaction between particles, particularly sugar crystals, dispersed through the syrup and the effect they have on the texture, structure and rheological properties of grained confections are the main topics.

Whereas fat-based confections are relatively narrow in their type, syrup-based ones have many variables. This leads to the enormous range of delicious confections and confectionery centers covered in chocolate that is the basis of our industry. Until relatively recently, the main ingredient has always been sugar — the traditional sweetener and bulking ingredient. Sugar replacers and intense sweeteners have now extended the range of sugarfree confections, which are now a significant part of the total market.

**Structure of Syrup-based Confections**

The simplest and earliest confection known to humans is honey. Honey is nature’s invert sugar, consisting mainly of two simple sugars, dextrose (sometimes called glucose) and fructose (fruit sugar).