

# Popcorn Manufacturing Methods and Formulas

*from Choice Confections*

*by Walter Richmond*

For many years, the confectionery industry has utilized the formulas in Walter Richmond's book *Choice Confections*. This book was originally written in 1954 and has been reprinted four times. Presently, the book is in the process of being updated. As part of this updating process chapters will periodically appear in the *Manufacturing Confectioner*. We solicit any comments, suggestions or formulas that readers have pertaining to the chapter in this issue.

Popcorn confections are a staple item in many retail candy stores. The volume of popcorn sales reaches its peak in the summer. However, there is enough demand for popcorn confections throughout the year to make manufacture a worthwhile venture.

Two popular types of popping corn are white rice corn, which produces a small white kernel when popped, and South American popcorn, which produces large kernels when popped. Popping of the corn is caused by the explosion of the kernels when the moisture contained in the kernels is heated and turns into steam.

The size of the popped kernel depends to a great extent on the amount of moisture in the corn, and on sufficient heat to quickly pop the kernels. Corn with the correct amount of moisture (about 12 percent) and with correct heat regulation should pop in two minutes or less.

The popped corn should be sifted in a sieve with large openings to remove all unpopped kernels.

Low-moisture-content corn, which produces a large percentage of unpopped kernels, can be freshened by moistening 10 lb of kernels with about 1½ oz of water, and storing the moistened corn in a well-covered container overnight. This often gives the corn the moisture needed to produce fully popped kernels.

After being popped, the corn absorbs moisture very quickly. For best results, the popped corn should be used the day it is popped, or should be stored in a room with low humidity.

Highly cooked brittles, crispettes, etc., cool very quickly and should be made in small batches and formed into desired shapes before the product becomes cool.

The correct percentage of syrup to corn should be used if good eating quality is to be obtained. Too large a percentage of highly cooked syrup takes away the crispness, which is one of the best qualities of brittles, crispettes, etc.

All highly cooked batches should contain some grease. The grease allows the corn to mix more freely and not tear apart in the mixing kettles. The corn should be mixed into the syrup quickly before the syrup cools and the kernels of corn break. The finished product should be packed as quickly as possible in tightly covered containers, or wrapped in wax paper or moisture-proof-cellulose wrappers, before crispness is destroyed by absorption of moisture from the air. The wrapped goods can be heat-sealed to further increase their keeping quality.

Buttered popcorn for the retail trade should be made fresh daily. Dairy butter should be used to obtain the finest-flavored buttered corn. Dairy butter contains 15 to 18 per- ➤