

## Book Review

### Tharp & Young On Ice Cream An Encyclopaedic Guide to Ice Cream Science and Technology

**Bruce W. Tharp and L. Steven Young**  
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Or direct from the authors: <http://www.onicecream/book-order.html>  
USD 160 + USD 15.00 shipping

### Background

This book is so much more than the title would suggest. Whilst it is laid out alphabetically, discussion and cross-referencing are comprehensive, giving the reader the benefit of both authors' extensive knowledge and understanding of ice cream – a compilation of their combined lifetime experience on the subject.

Dr Bruce Tharp grew up in the ice cream industry with his father's manufacturing business, Tharp's Ice Cream. His passion for ice cream and dairy saw him complete three degrees in dairy science from Pennsylvania State University. Bruce was the inaugural recipient of the International Ice Cream Association's Lifetime Achievement Award in 2006, in recognition of the immense contribution he has made to the ice cream industry globally with passionate communication of his technical expertise.

Likewise Dr Steven Young had early exposure to the dairy industry with his father being a well respected cheese and whey products technical expert. Dr Young's former roles include Director of R & D at Dryers/Edy's Grand Ice Cream in the USA and former Director of food ingredient applications at ADM, USA. He is now an independent dairy and food technologist working on a consultant project basis.

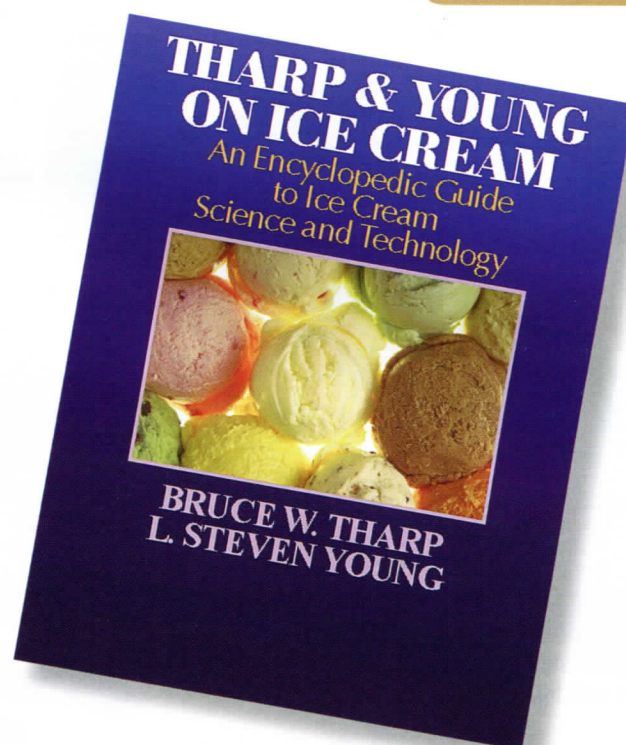
Leveraging their combined (greater than 100 years) experience in ice cream, these two gentlemen have collaborated since 1996 with *Tharp & Young on Ice Cream*, the title given to the technical short courses, product workshops and clinics for ice cream training they jointly present around the world.

### Contents

The book is divided into two sections. The first and largest section (350 pages) is the A-Z of listed terms and explanations.

Under 'C' is an entry for Calculations. This entry gives 11 pages of detailed information on calculating product weight, overrun, specific gravity, target package weight at the filler and consideration of inclusions in calculations of package weights.

Under Mix Processing, there are 18 pages of explanation, diagrams and photos of the processing steps – the how and why are well explained. The effect of not enough or too much agitation during dispersion of dry ingredients is covered very well.



Other topics that are given excellent detailed coverage are emulsifiers, fat agglomeration, formulation guidelines (not just for ice cream: soft serve, sorbet, milkshakes, no sugar ice cream are also covered), freeze concentration, extruded novelties, melting behaviour, sensory evaluation (10 pages on this, for product development and quality) and stabilisers.

This book gives the best explanation I have ever read as to how gelato differs from ice cream in 4 pages).

Because the regulatory section is based on US frozen dessert standards of identity and nutrient content claims the details given are not relevant to our market.

Throughout the general text of this book, temperatures are given in both Fahrenheit and Celsius scales.

### Appendix

The second section is the Appendix, which is a 39 page collection of essays the authors have had published in the US industry magazine *Dairy Foods* since 1999, updated for this book. Essays include Accelerated Shelf Life Testing, Alternative Sweeteners, Cost Management, Downsizing of Ice Cream Packaging, Flavour Changes in Ice Cream during Storage and Pink Discolouration in Vanilla Ice Cream.

### Conclusion

The subject matter in both sections includes detailed scientific information in a very easily understood and interesting manner, making it not only a reference book but one that can be read from cover to cover. This book would be equally useful for research, product development, operations and quality personnel working in the ice cream industry.

I liken the reading of this book to the experience you have when you listen to a technical guru talk on a subject matter dear to their heart and you'd like to listen to them all day. Fortunately, the authors' experience is now well documented in this book so we can benefit from their years of observation and understanding about ice cream.

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