

# FRUIT PROCESSING



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Drying Systems  
Filtration & Separation  
Hygienic Design  
Market Price Report  
Packaging  
Product Development  
Product Launches

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**„An essential pillar of circular economy is recycling.“**

(Luc Desoutter, Sustainability Officer at Sidel)



# The Publication for Practitioners!

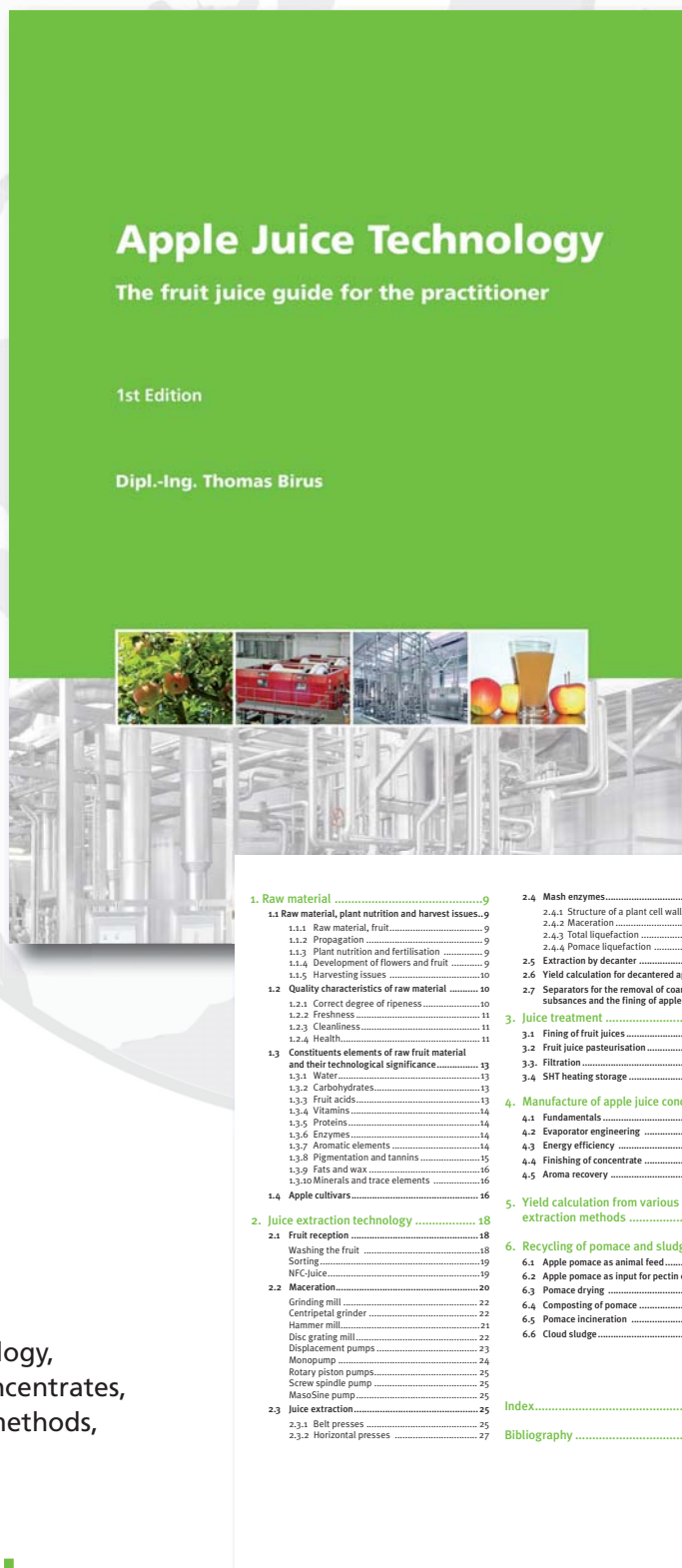
The production of apple juice is a carefully engineered sequence of technological measures aimed at extracting the valuable, flavoursome, enjoyable and desired contents from apples and presenting them to the consumer in the very best packaging.

**With this book, up-to-date information is now available to practitioners keen to learn what's new in the increasingly automated production. The book sheds light on the back-ground to modern apple juice technology without delving too deeply into scientific detail.**

This book is intended to be of service to school and college students, skilled and master craftsmen and engineers.

It will help to answer the many questions about "How does that work?", "Is there an alternative to this method?" and "Can I do something better in my operation?".

**Content:** raw material, juice extraction technology, juice treatment, manufacture of apple juice concentrates, yield calculation from various juice extraction methods, recycling of pomace and sludge.



## Apple Juice Technology

The fruit juice guide for the practitioner

1st Edition

Dipl.-Ing. Thomas Birus

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### PRODUCT DEVELOPMENT

**‘There’s Still Room for Growth in Europe . . . . . 150**



Sometimes you can’t see the juice for the bottles. Almost every day, a new product enters the global beverage market – and a new trend: holistic, individuality, indulgence, sustainability, naturalness, convenience, and so on and so forth. Together with Kay Schumacher, Team Manager Product Application and Development at the Hamburg-based fruit ingredients expert Bösch Boden Spies, we take a look at the European beverage sector, focusing on a market with quite special characteristics: Germany ...

### HYGIENIC DESIGN

**New aseptic double-seat valve increases shelf life of beverages . . . . . 154**

GEA launched its new D-tec® D/DV double-chamber valve by end of April 2019. This special double-seat valve is designed with a sterile leakage chamber which is hermetically sealed from the atmosphere by two side valves. As with the entire aseptic D-tec® range, the outstanding sealing properties of the new valve stem diaphragm raise hygiene standards to an UltraClean level, thus increasing the shelf life of soft drinks, fruit juices, as well as milk-based and lactic acid-fermented products ...



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**FILTRATION & SEPARATION**

**Don't give clogs a chance . . . . . 156**

VOG Products uses a two-stage filtration system with BECO PROTECT CS depth filter cartridges as a pre-filter and BECO MEMBRAN PS Pure membrane filter cartridges as a final filter for the sterile filtration of apple juice. This combination not only removes microorganisms and their spores but also enables a long service life with no colloid clogging in the membrane filter cartridges ...



**PACKAGING**

**Beyond the bottle . . . . . 158**

It's easy to forget that packaging is much more than just the bottle that reaches the consumer. It includes secondary packaging that bundles the bottles or packs together and tertiary packaging that gets the bundles in a format that is easy to transport. Luc Desoutter, Sustainability Officer at Sidel, talked to us about the company's end-to-end approach and how it can contribute to the circular economy ...

**DRYING SYSTEMS**

**Efficient drying in high-humidity food processing operation . . . . . 161**

Food processing production setups have to take special care with regard to bacteria, micro-organisms and other pathogens to deal with the given high hygiene standards. Uncontrolled airborne moisture in food production and processing companies can result in many big practical difficulties. The moisture present everywhere in the air tends to condense on process equipment, structures and walls inside the facility ...

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