PROCESSED FOODS & REFORMULATION COVERAGE IN FSTA®

Trusted by researchers, scientists, students and government bodies in over 150 countries across the globe, FSTA is the definitive way to search over fifty years of historic and emerging research in the sciences of food and health.

Covering a wide range of interdisciplinary material, FSTA includes a wealth of international processed foods and reformulation content including:

All aspects of the formulation, processing, packaging, quality control, storage, distribution and marketing of processed foods including:

- Chilled and frozen foods
- Ready meals, convenience foods and snack foods
- Catering meals, including for schools, hospitals, airlines, space flight
- Alternatives, such as dairy, vegan alternatives
- Substitutes such as cheese, coffee, fat, meat, salt and sugar substitutes
- Imitation foods
- Dried foods, instant foods, mixes and powders
- Spreads, concentrates, pastes and extracts
- Condiments, preserves and sauces
- Functional foods and ingredients
- Health foods and sports foods/beverages
- Dietetic foods, and foods for weight loss
- Infant formulas and weaning foods

Reformulation of foods and beverages, including:

- Reduction or elimination of calories, fats, cholesterol, salt, sugars (sucrose, lactose), gluten, allergens, animal products
- Increasing contents of micronutrients, protein, dietary fibre, phytochemicals and other bioactive compounds
- Improving physical, chemical, microbiological and sensory quality characteristics
- Improving processing and technological properties
- Increasing storage and shelf-life, and ensuring food safety
- Development of clean label products
- Improving sustainability through use of by-products and underutilized food resources
- Patents

USING FSTA FOR YOUR PROCESSED FOODS AND REFORMULATION RESEARCH

Example search questions

- How do variations in salt and sugar ingredients affect the time-temperature thermal processing requirements of tomatoes? *(Sample record on following page)*
- What processes are optimal for retaining nutrients in powdered skim milk?
- Which ingredients can be used to maintain the quality and sensory properties of reduced fat sausages?
- How is it possible to maintain the saltiness of foods, but reduce the sodium chloride content?

SOURCE EXAMPLES

Processed foods and reformulation content is drawn from a wide variety of sources including journals, patents, books, reports and more.

Here are just some of the many processed foods and reformulation focused journals included within FSTA, chosen to illustrate the diversity and breadth of content:

- Food Processing
- Journal of Food Engineering
- Journal of Food Process Engineering
- Journal of Food Processing and Preservation
- Journal of Food Protection
- Prepared foods
- Process Biochemistry
- Science and Technology of Food Industry

SAMPLE FSTA RECORD FOCUSED ON PROCESSED FOODS AND REFORMULATION

Impact of salt and sugar reformulation on processing parameters for orange juice and tomatoes using ohmic heating.

Author: Ajayi, O. M.; Martindale, W.; Swainson, M.

Correspondence Address: The National Centre for Food Manufacturing, University of Lincoln, Lincoln, UK.

Source: British Food Journal, Volume:122, Issue:1, Pages:75-86

DOI:10.1108/BFJ-12-2018-0821

Published: 2019

Document Type: Journal Article

Abstract:
Purpose. The purpose of this paper is twofold: first, it aims to investigate how salt and sugar reduction in foods due to the pressure from the emerging food regulations will affect the physico-electrical properties (PEPs) of orange juice and tomatoes during a selected PEP-dependent thermal processing. Second, the authors are keen to understand how variations in salt and sugar ingredients will affect the time-temperature processing requirements.
Design/methodology/approach. PEPs of the samples (orange juice and tomatoes) were measured using the KD2 thermal analyser and RS conductivity metre. Both samples with varying salt and sugar levels were subjected to ohmic heating processing using a 10 kW ohmic heater. Dehydration rates and processing times for pasteurisation were obtained.
Findings. Electrical conductivity increases with added salt in tomato puree but decreases with added sugar in orange juice. Statistical evidence confirmed significant changes in heating rates and processing times of tomatoes and orange juice as their relevant salt and sugar levels change. Reduction in salt content in tomato puree led to increase in time and energy for the thermal processes. While reduction in added sugar in orange juice results led to reduction in processing time and energy requirement for the processing operation.
Research limitations/implications. The study is limited to small change in salt and sugar variations in order to reflect recommended limits. There were therefore no significant changes in thermal conductivity for the range investigated. Also this study is focussed on two food products.
Practical implications. Current pressure on the need to reduce salt and sugar in foods necessitates research to increase food processing industry insight into the process and product impacts of such recipe changes, with particular regard to processing efficiency and product safety and quality.
Originality/value. This study represents an attempt to understand the impact of salt and sugar variations on properties and processing requirements of tomato puree and orange juice.

Keywords: DRYING; ELECTRICAL CONDUCTIVITY; ELECTRICAL PROPERTIES; HEATING; OHMIC HEATING; ORANGE JUICES; PASTEURIZATION; PROCESSING; REFORMULATION; SODIUM; SODIUM LOW FOODS; SUGAR; SUGAR LOW FOODS; TOMATOES

FURTHER INFORMATION

Visit the IFIS Publishing YouTube channel to view training videos or join a training webinar at www.ifis.org/fsta-user-training.

If you would like more detailed information or to set up a training session, please contact Angela Ball **a.ball@ifis.org** (existing customers) or Carol Durham **c.durham@ifis.org** (non-customers).

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