



Organic food processing, actual principles, new challenges and possible ways to go

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with results of the project proOrg

Initial position



- Increasing demand for more processed organic food
- Farm to fork strategy proposing 25% organic farm land in 2030
- The share of organic products and the consumption should raise up at least 10% yearly in the EU
- Overall goal to assure the credibility of organic farming and processing
- Good knowledge of the principles of organic processing are needed!

Basics organic processing in the regulation

Organic food must be made from ingredients of organic agricultural

- Origin of ingredients - separate flows of goods

Restriction of food additives and processing aids, at most natural flavourings and flavouring extracts allowed

- Positive list in the Annex VIII to the 889/2008

Substances and manufacturing processes which could be misleading with regard to the actual nature of the product are not permitted.

- Truthfulness

The food must be carefully processed, preferably using biological, mechanical and physical methods.

- Gentle processing



New challenges: Outlook EU regulation



In discussion and development are

- More restrictive processing guidelines; actually forbidden is ionic exchange
- Rules for cleaning and disinfection in processing companies
- More precise rules for residue management

New challenges: What is driving force for development

Production chain efficiency

Consumer trends

Modern nutritional requirements

Scientific discoveries

Innovation

Nutritional values

Traditional food

established processing
methods

Sustainability

Reduce food waste

versus?

**Organic processing
principles**

Source: Janis Garancz - Aloja Starkelsen

Food trends: are they in contrast to the organic principles?

- Plant Based Food → competence on organic
 - Transparency → competence in the whole food chain
 - Fast Good → principle of healthy food
 - Food Pairing → creativity is a principle of organic
 - Brutal Local → organic flexible, local structures are given
- Trends meets the competence of the organic sector in the whole food chain

Source: Hanni Rützler, Food Report 2021, 2020

Requirements with regard to the technology (1/2)

1. Technology should avoid or minimize the use of external inputs (additives, processing aids, functional ingredients and similar products).
2. Technology should be applied with care, preferably through the use of biological, mechanical and physical methods and shall comply with the principles of good manufacturing practice.
3. Technology should be based on processing methods, which guarantee that the organic characteristics and qualities of the products are maintained through all stages of organic production.

Requirements with regard to the technology (2/2)

4. Technology should ensure the integrity (as defined in the organic regulation) of organic production at all stages of the production.
5. Technology should facilitate the production of a wide variety of high-quality food. Other issues like sanitation (e.g. HACCP concept) should be taken into account to comply with general food regulation.
6. Technology used should not mislead consumers regarding the true nature of the product.

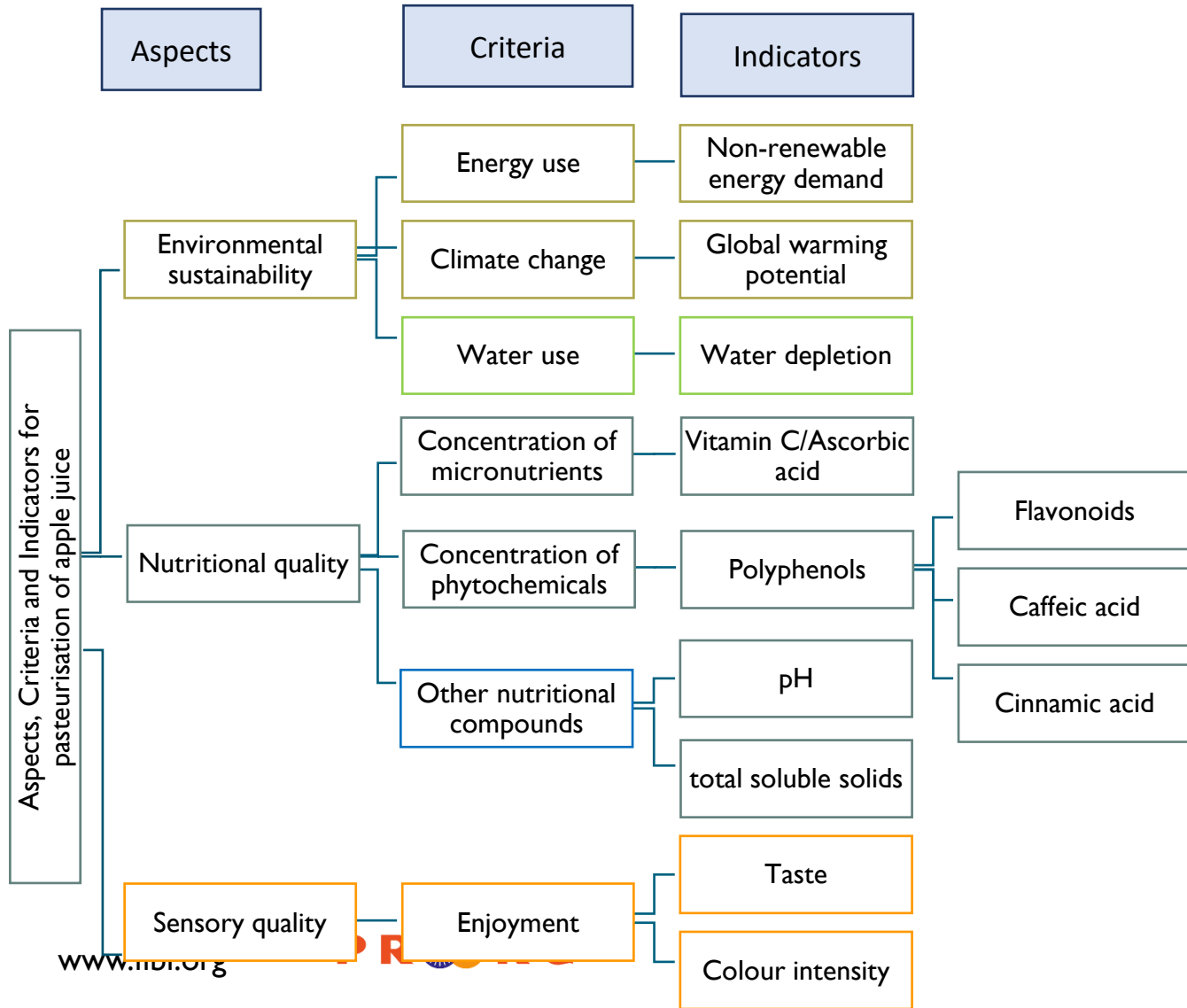
How to fulfill the technological approaches for organic?



Assessement frame work

- to assess and compare processing technologies based on the EU Bio principles
- to provide a basis for objective assessment
- to test new technologies for their bio-acceptability
- to be used as a basis for decision-making in the case of technological changes
- to systematically apply the specific requirements of organic associations and legislators when assessing processed products
 - make decisions uniform and comprehensible

Overview assessment (example apple juice)



Assesment framework: practical experience

The AF was tested e.g. by a master thesis, where two different processes of milling were compered.

Results:

- The AF was applicable
- The processes were able to be compared based on the priciples of the EU regulation
- The results could be used for the management decision

The following problematic raised up:

- Goal needs to be declared more specific
- The introduction of the methodology, the documentation of the results and the calculation of the final assesment was complicated and time consuming

Assesment framework: next steps

Break down the AF for the different stakeholder groups:

- Processing companies
- Labelorganisations, Competent authorities

AF will be clearly guided

1. Instruction video of the goal and the principle of the methodology
2. Set of given indicators and criteria's
3. Excel tool for the evaluation of the given parameters
4. Guidance will be with yes and no questions to focus on the relevant criteria

Assessment framework a possible way for the evaluation of technologies

Assessment Framework



Erstellt von Pia Uthe
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Der Assessment Framework ist ein Bewertungssystem, um vergleichbare Technologien zu bewerten und die nachhaltigere Alternative zu identifizieren.

Process of evaluation of processing technologies

- ▼ Assessment Framework
 - Einführung
 - Grundlegendes zu Beginn
- ▼ Phase 1
 - Schritt 1: Zu vergleichende Technologien definieren
 - Schritt 2: Zu vergleichende Technologien verstehen
 - Schritt 3: Systemgrenzen festlegen
- ▼ Phase 2
 - Schritt 1: Festlegen von Kriterien, Indikatoren und Parametern
 - Schritt 2: Analyse der Indikatoren
 - Schritt 3: Bewertung der Indikatoren
- ▶ Phase 3

The tool will be internet based

- Introduction video: need and the goal of the methodology
- Introduction video about the principle of the methodology
- Guidance in part 1, 2, 3
- Proposals for basic product specific criteria and indicators
- Excel file evaluation

To summarize (1/2)

- F to f strategy -> good guidance of new players to ensure credibility with regard to organic food processing
- More restrictive processing guidelines:
 - > clear guidelines to evaluate processing technologies to ensure comparability are needed
 - > the evaluation of the thechnology based on AF is a possible way
- Food trends can be taken up by the organic, competence is already in the sector

To summarize (2/2)

- the new restrictions will not only affect organic products
 - e.g. cleaning and disinfection
 - e.g. exclusions of technologies
- > positiv effect on food quality and sustainability
- > negativ effect: some unique selling points for organic got lost in the longterm

Thank you for your attention!

Thanks to the project partner and the founders



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 CORE organic

