

Regulatory Framework and Effect on Taste

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Is the Regulatory Framework Affecting Sensory Properties?

- Do standard requirements/ differences have a relevant direct or indirect impact on sensory properties?
- If yes, are there really relevant differences in standards and regulations?
- Hypothesis:
 - Quality guidelines or Codes of Practise of private companies have a higher influence on taste than standards and regulations

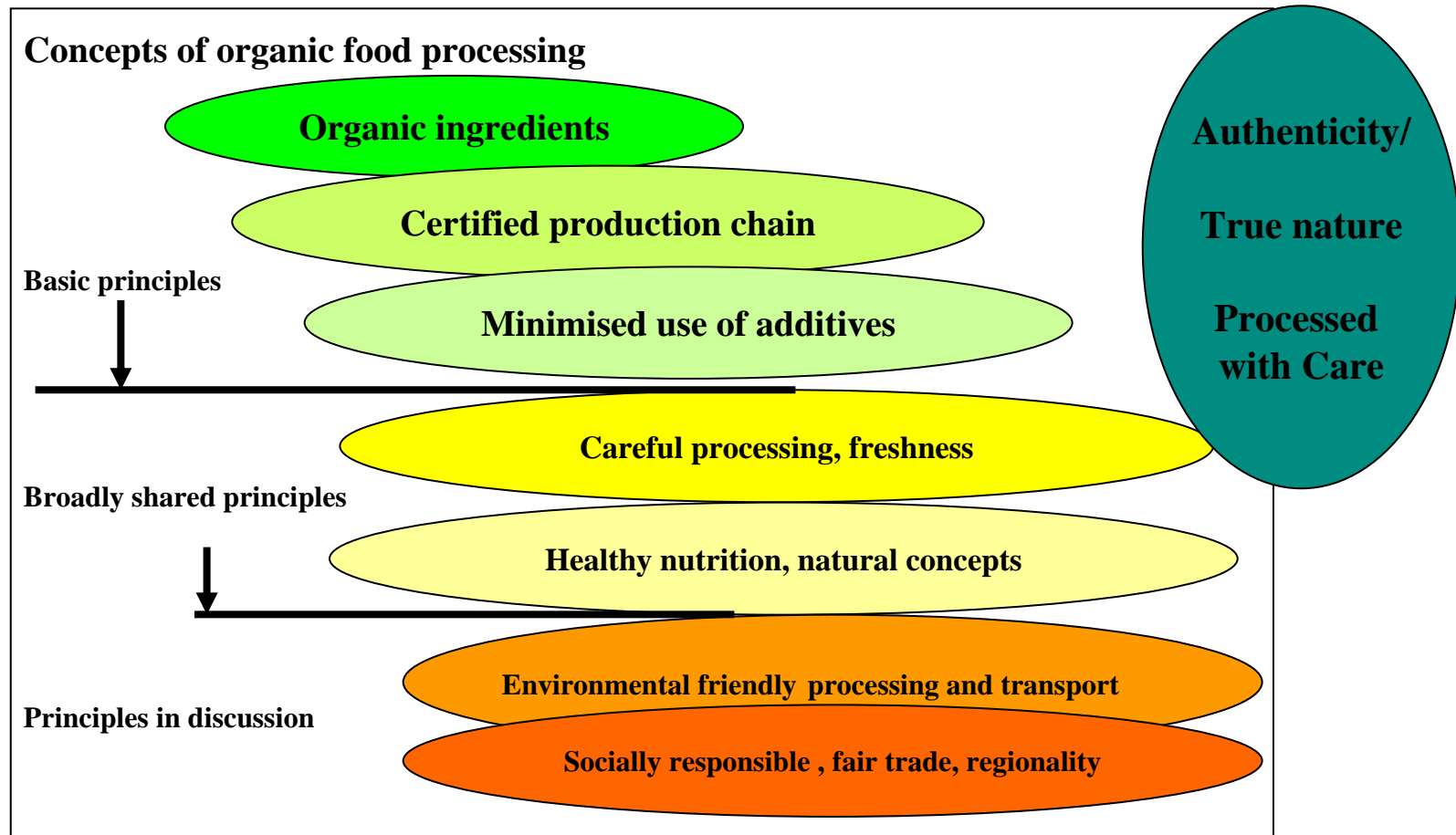


WP 1 Analysis of Regulatory Framework Affecting Sensory Properties – **Main Focus**

- Main focus on the **specific requirements of public regulations and private standards** for organic production which affect sensory properties.
- Focus on the new Council Regulation (**EC No 834/2007**) and the related rules for implementation (**EC No. 884/2008**)
- In addition, the **most important private standards and governmental regulations** for organic food and farming in the countries involved will be analysed,
- **Main phasis of the analysis will be on the requirements for processing** (e.g. use or non-use of specific additives).



Underlying Principles for Organic Food Processing



Source: EU project Quality of low input food, 2006

Relevant Standards Restrictions with Impact on Taste: Animal Products

Product group	EU Organic Regulation 834/2007 /884/2008	Private Standards (e.g. Bio Suisse)	Company quality guidelines/code
Milk products e.g. yoghurts	Exclusion of artificial flavours,	No lactic and other non-milk based acids; No natural flavours at all	Exclusion of plant based thickeners, restricted sugar;
Melted Cheese	No phosphates (instead citrates)		
Meat products	No phosphates, No glutamates; Restricted use of nitrates/ nitrites & Ascorbates	No flavours (even not natural ones),	Exclusion of nitrates/ascorbates

Standards Restrictions as a Chance to Search for Innovative Processing Concepts

- **The strong restrictions for additives and the minimal processing concepts is a incentive for searching new innovative methods, e.g. the use of functional ingredients**
 - *See example: ice cream, yoghurt.*
- **Furthermore, requirements for raw materials regarding ripeness, freshness, fertilisation contribute to taste**

Freshness:

Taste and authenticity

taste
ECROPOLIS

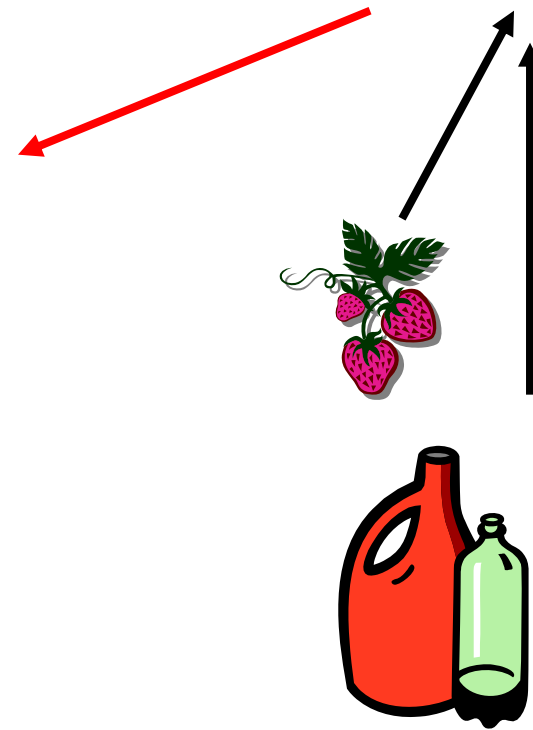


fresh, ripe fruits



Fruits without flavour

fragrance



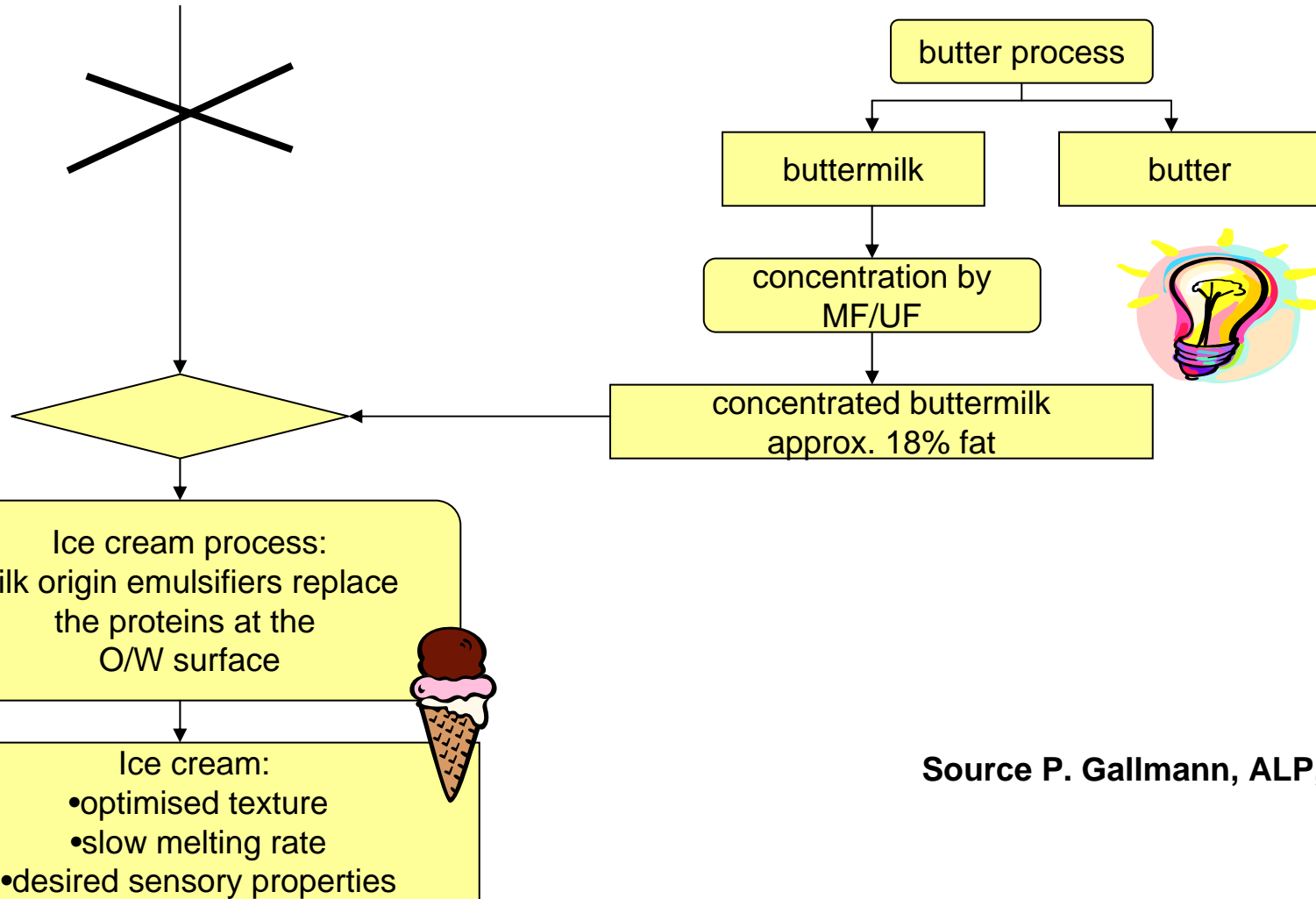
Source P. Gallmann, ALP, 2000

Minimal processing:

buttermilk replaces emulsifiers

Non dairy emulsifiers: E322, E471, E472, E475, E477, E473, E474

Parts of the milk fat globule membrane

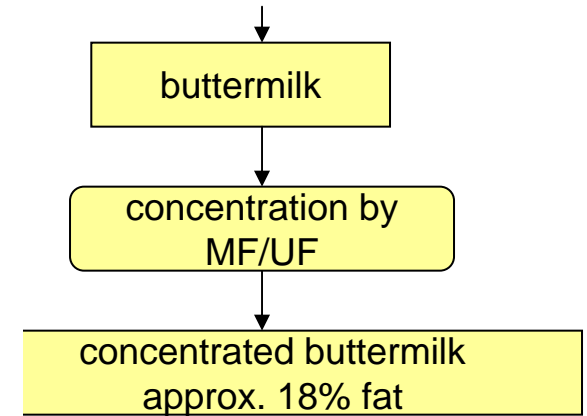
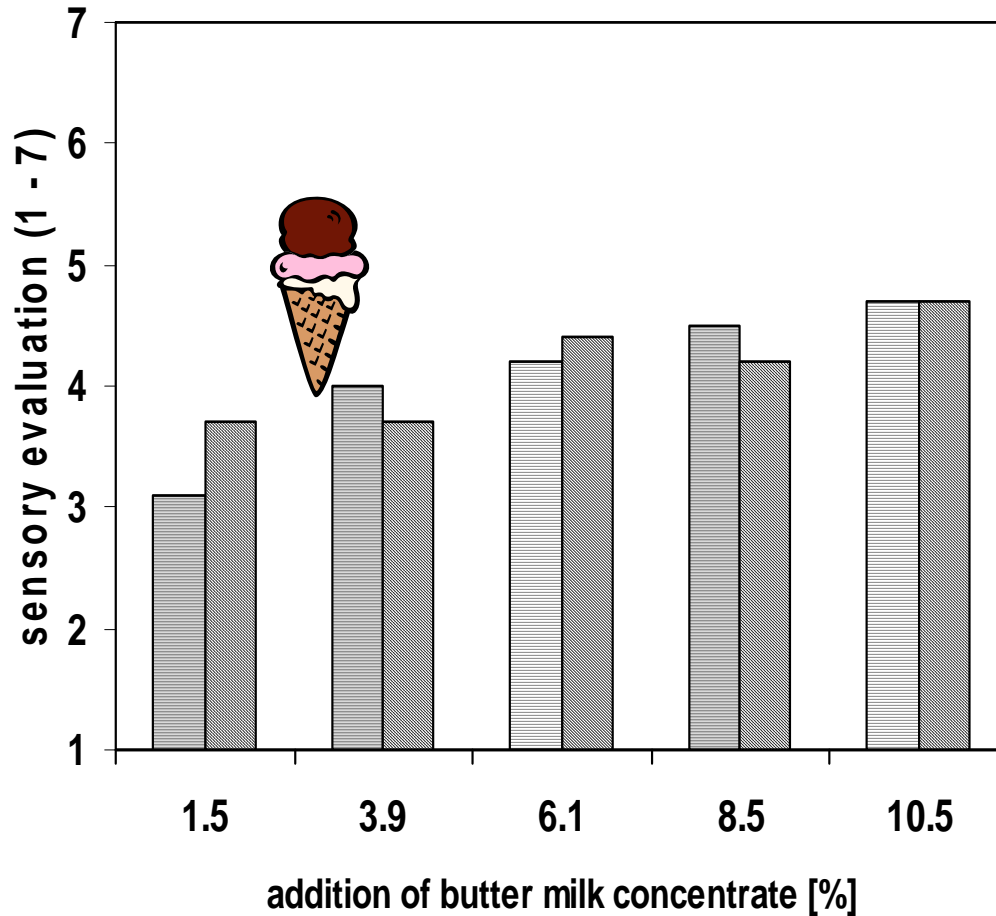


Source P. Gallmann, ALP, 2000

Minimal processing:

buttermilk replaces emulsifiers

ECROPOLIS



Effect of added buttermilk concentrate on „creaminess“ (crosswise) and „mouthfeeling“ (diagonal).

Source P. Gallmann, ALP, 2000



Preliminary Thoughts

- In **production standards** both EU Regulation as well as private standards have almost no restrictions, which have a direct or indirect impact on taste.
- In **processing**, by the fact that **only very few additives can be used for organic food** based on EU Regulation 834/2007 ff – some acids, preservatives or thickeners or flavour enhancers cannot be used.
- Most **differences will be in processing standards of private organisations** (e.g. Bio Suisse, Demeter, Bioland), which restrict processing methods as well as some additives (e.g. ascorbic acid).
- Some company have **internal quality management standards** for their producers, which influence taste,



Questions for Discussion in Plenary

- **Must organic products be the same like conventional ones or should they have an own sensory and quality profile?**
- **What are the most relevant production or processing restrictions for optimal taste from a company perspective?**
- **Would it be desirable that private organic label organisations develop Organic Quality Management Guidelines or Code of practices (which can be developed to a Code of Conduct for all members)?**
- **Which firm/enterprise has special quality requirements/guidelines which are interesting for the project?**
 - **Please communicate with us – we will keep you informed regularly about the project outcomes**



Interesting Taste Assurance Concepts



- Which firms/enterprises have special quality requirements/guidelines, which are interesting for the project
- Please communicate your own requirements to us – we will keep you regularlary informed about the project outcomes
- Contact for standards issues:
- Otto Schmid, FiBL : otto.schmid@fibl.org

