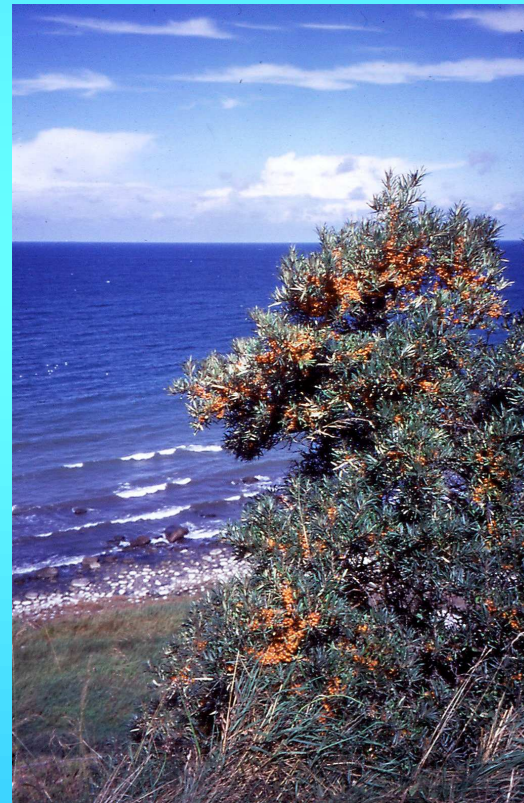


Seabuckthorn on the way to global market



J.-Th. Mörsel

UBF GmbH, Altlandsberg

EuroWorkS 2010, Potsdam

www.ubf-research.com/presentations

Content

- SBT's position in the world
- SBT as raw material - standards and needs
- Consumers needs
- Producers needs
- Requirements to technology
- What modern processing technologies should imply
- the 'quality flow' from tree to counter
- summary

SBT's position in the world

From nature different plant

- different species, sub-species and varieties
- different areas of cultivation
- different technologies of
 - harvesting
 - after harvest treatment
 - processing
- different cultural environment

Men are different - the customer

- different expectations on products in general (taste, colour, appearance, smell, packaging)
- different cultural needs - organic food, social accountability, environmental effects. sustainability
- resulting - manifold applications

SBT's position in the world

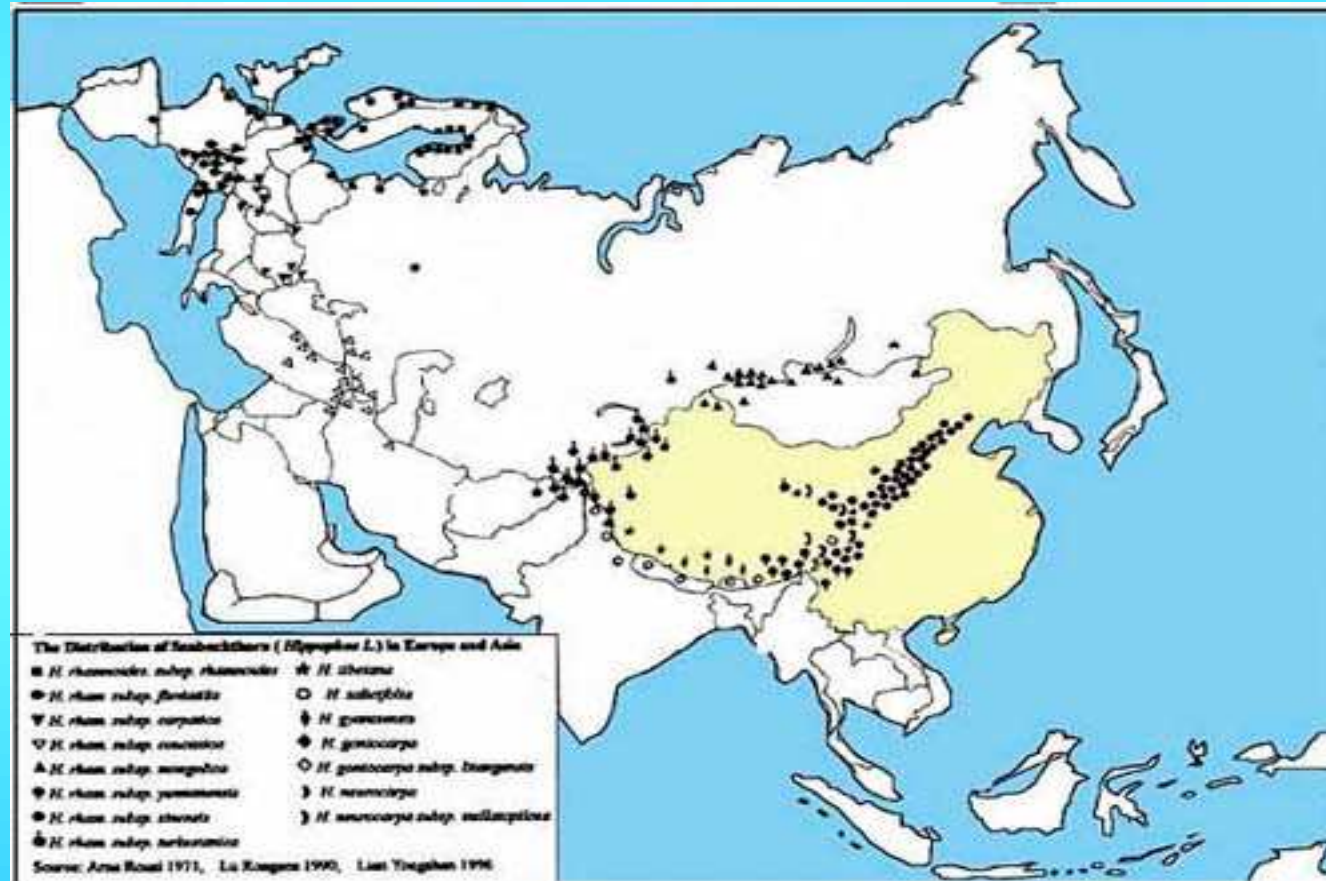
International trade is growing

- upcoming production in Asia
 - China
 - India
 - Mongolia
 -

SBT in the world - view from databases in Europe



SBT in the world - view from ICRTS China



SBT's position in the world

International trade is growing

- upcoming production in Asia
 - China
 - India
 - Mongolia
 -
- in Europe
 - European community
 - Russia
 - Turkey
 - Ukraine
- in America
 - US
 - Canada

SBT as raw material - standards and needs

Demand is still rising

- German market - estimated only 50% of raw material supplied from inland (planted area growing!)
- Raw materials from Baltic and southeast european states
- Raw materials from Russia and China

Raw material specification incompatible |

Europe

- organic food
- min. residues
- safety
- processing properties

December2010

Russia

- sanitary and national standards
- maximum in lead substances
- oil yield maximum

EuroWorkS 2010 - Potsdam

Asia

- maximum in lead substances
- oil yield maximum
- national standards

Consumers needs

- differ regionally
- depend on culture
- a question of finances
- traditional influences (medical plant / nutritional plant / both)
- food safety plays a role
- regional sources favoured
- virtual values

Producers needs

- cheap raw material
- optimal processing qualities
- availability, just in time
- stable product with perfect quality
- safe product chain
- trusted suppliers
- certification (ISO, organic food, SA, fair trade)

Requirements on technology

Only a question of labour costs?



Harvesting technologies for SBT

Only a question of labour costs?

A question of quality!

- Minimum of damaged fruits
- reduced adulteration
- minimum of pollution
- short time from harvest to storage
- maintenance of valuable ingredients

After Harvesting Techniques*

Reduction of chemical changes

- biochemical degradation
- oxidation
- hydrolysis

Reduction of microbiological changes

- fermentation
- contamination by micro-organisms
- toxin formation

Prevention of chemical contamination

- PAH's, PCB's,
- pesticides
- radioisotopes

*From ISA 2009 - Belokurikha



What modern processing technologies should imply

Depending on product properties

- reduced damage of ingredients and nutrients
- high yield on target compounds or constituents
- economy of processing
- waste minimisation
- use of by-products

Depending on social needs

- organic farming (EU 2092/91, 834/2007 + 889/2008)
- social accountability SA8000
- sustainability, environmental friendly production
- extra benefits

the ‘quality flow’ from tree to counter

- Quality
 - is a complex interaction of many parameters
 - depends on regional and international factors
 - results from production process
 - arises from consumers demands and needs

the ‘quality flow’ from tree to counter

- SBT was for long time
 - plant with no need
 - plant easy to grow, harvest and process
 - the cash cow
- Resulting:
 - SBT and SBT products became
 - a good for trade
 - an object of speculation
 - a product of adulteration

the ‘quality flow’ from tree to counter

Resulting necessity

- responsible handling and processing of
 - seeds and seedlings
 - plants
 - berries - fruits
 - semi-finished products
 - final products
 - Inspection and control
 - of international and national trade
 - International quality standards for SBT
-
- it's a challenge to grower and producer each day

the ‘quality flow’ from tree to counter

The dilemma of standardisation and legislation



‘Western’ system

- many legal regulations
- standards have no legal power
- many product details regulated by contracts

‘Eastern’ system

- only basic legal regulations
- standards have legal power
- product details mostly not regulated by contracts

*From ISA 2009 - Belokurikha

the ‘quality flow’ from tree to counter

The dilemma of standardisation and legislation



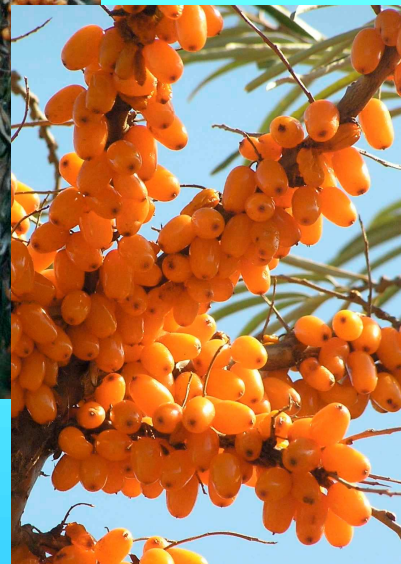


summary

- SBT is growing international merchandise
- standards for international trade are necessary:
 - for raw material properties
 - for semi-finished products
 - for final goods
 - for documentation and legislation
 - for testing procedures

summary

- Standards shouldn't be based on lowest level requirements (fulfilment of legal musts)
- Standards should be at a high stage (fulfilment of customers demands)
- Quality management is a necessary mean in international trade
- It's the ticket to world market
- we need standards for international trade
- supplier and producers have to take care on customers demands



Thanks for your
kind attention

