# Luonnon raaka-aineista ihonhoitotuotteita – Lumene tarina

Argumenta-hankkeen seminaari 4.6.2014 Tiina Isohanni, innovaatio- ja tuotekehitysjohtaja, Lumene



### **LUMENE STORY**

One Foot In The Wild And One In The Laboratory

It starts in the wild, with the resilient powers of Arctic ingredients. Using scientific expertise from our pharmaceutical roots, we then introduce nature to modern technology. Add inspiration from the pure beauty of the

Finnish lake *Lummenne* and the Latin word *lumen* for "light" – and our mission is simple.

Lumene was created to combine the best of nature with the best of science to illuminate natural beauty in all.





### **MADE IN FINLAND**

- Pharma heritage
- Arctic Ingredients
- Cleanest water in the world\*
- Own innovative R&D



 Lumene products are designed and manufactured in Espoo.

\* Finnish water quality is rated as number one in two different international researches. See Unesco World Water Assessment Program 2003 and World WaterCouncil 2002



## WILD ARCTIC BERRIES

Extreme arctic conditions & temperatures The harsh weather conditions along with long, light nights in the summer and dark, cold winters are thought to boost production of antioxidants in the berries.

Temperature difference between day and night is also an essential factor.

Geographical variation the further north you go, the higher the content of anthocyans and flavonols. <sup>1</sup>

The darker, the smaller, the better wild arctic berries are smaller than other berries giving a high skin-to-fruit ratio.

Wild berries contain more antioxidants than the respective cultivated berries.<sup>2</sup>



Summer night at Siilasjärvi, 11:52 PM



Sun sets in Utsjoki in November and returns mid-January

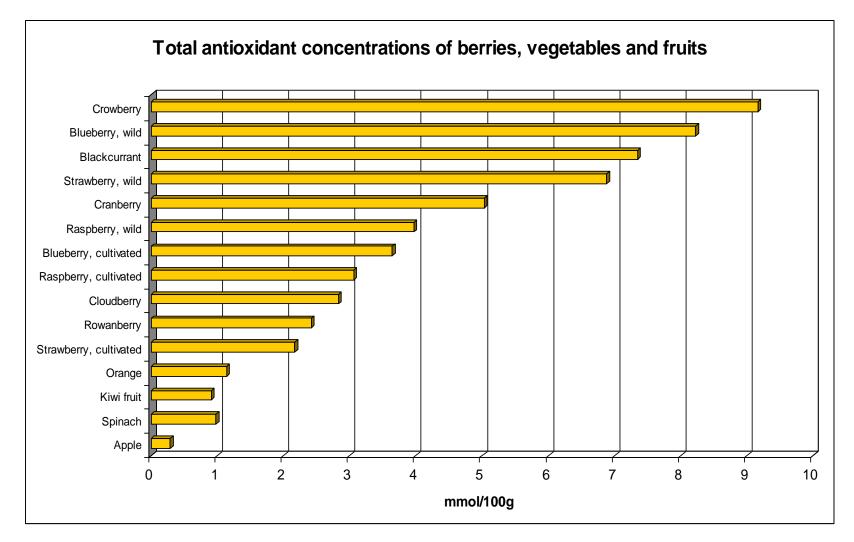


#### WILD ARCTIC NATURE - REFINED BY SCIENCE

<sup>1</sup> Lätti et al; *J. Agric. Food Chem., 2010; 58, 427-433*; Lätti et al; *J. Agric. Food Chem., 2008; 56, 190-196* 

2 Halvorsen et al; J. Nutr., 2002; 132, 461-471

### A RICH SOURCE OF ANTIOXIDANTS



#### WILD ARCTIC NATURE - REFINED BY SCIENCE



<sup>1</sup>Halvorsen et al; J. Nutr., 2002; 132, 461-471 (done with the FRAP assay)

1. Cloudberry is hand-picked	2. Cloudberry is delivered to the food industry	3. Cloudberry is delivered for extraction	4. Oil- and water-soluble substances come to Lumene
LAPLAND / KAINUU	KUOPIO / KAINUU	TORNIO	ESPOO
>>> THE JOURNEY OF CLOUDBERRY $>>>$			
ESPOO	ESPOO	ESPOO	STORES, HOME
5. Development and testing at Lumene	6. Product safety in	7. Lumene products are manu-	8. A responsibly produced product
testing at Eamene	cosmetics is tested	factured in Kauklahti, Espoo	with natural ingredients



### NEW POWERFUL TIME FREEZE WITH ARCTIC LINGONBERRY

Lumene R&D in co-operation with Oulu University CEMIS-Oulu Department (Biotechnology) is researching the transformation of arctic lingonberry by development of extraction process to improve anti-aging efficacy.

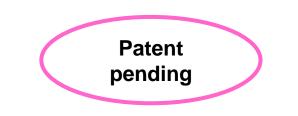
#### **Cosmetic benefits of lingonberry**

Bursting with bioflavonoids like **quercetin**, moisturizing properties, phenol compounds and antioxidants.

**Quercetin helps to** prolong skin cellular lifespan and survival and viability. Helps also to strengthen sensitive capillaries.

Vitamin C protects and brightens skin.

**Cosmetic benefits of Lumene lingonberry extract** New technology enables **40 x more Quercetin** compared to lingonberry Extremely high ORAC value

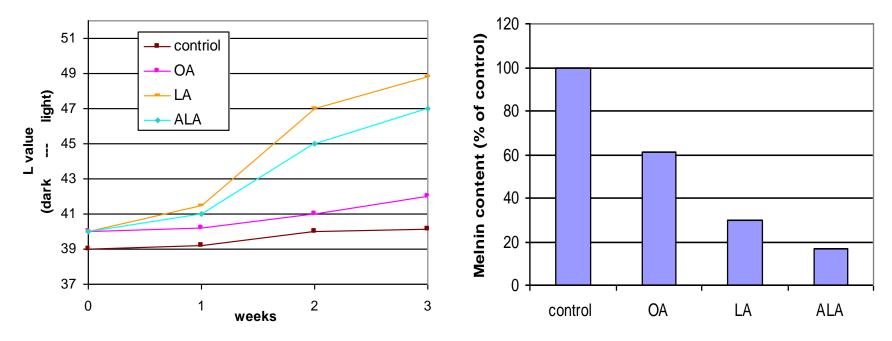




### FATTY ACIDS FROM LINGONBERRY SEEDS Skin lightening effect

#### Skin lightening\*

## Melanin content of melanoma cells cultured with different fatty acids



\* Yang and Judin (2004) Supercritical CO2 extracts from peat and lingonberry: innovative natural anti-aging ingredients for skincare. Cosmetics and Toiletries 4: 7-12.



## THANK YOU!

