

Framtiden för ekologisk produktion av äpple i Finland -möjligheter och hinder

Sanna Kauppinen

Senior Research Scientist, Natural Resources Institute Finland

sanna.kauppinen@luke.fi

+358 40 183 4845

Framtidens ekologiska produktion av äpple i Norden -seminarium
Alnarp 21.4.2015

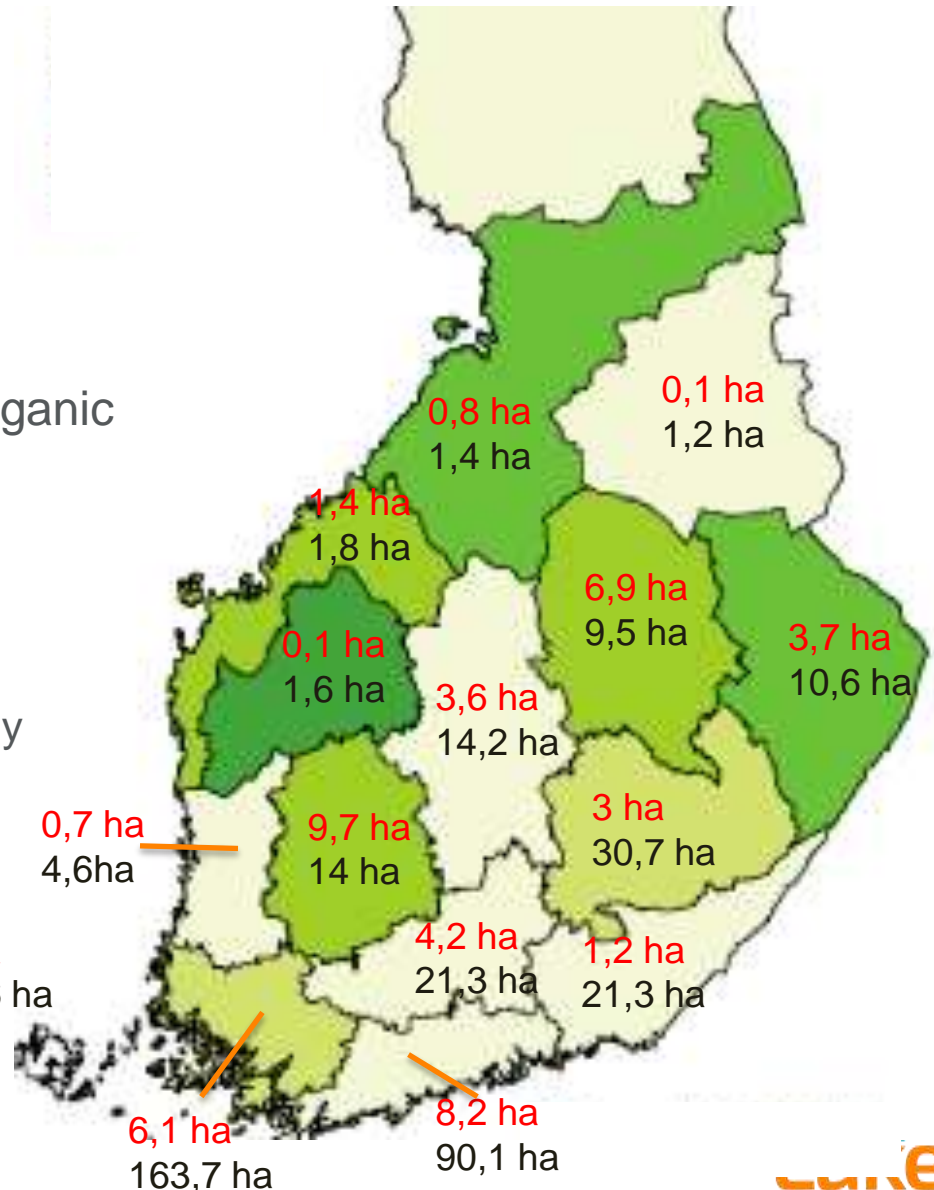
Apple production in Finland -Hectares

Year	Ha total
1990	380
1991	361
1992	348
1993	354
1994	377
1995	419
1996	437
1997	452
1998	464
1999	479
2000	506
2001	531
2002	560
2003	596
2004	620
2005	646
2006	635
2007	649
2008	668
2009	653
2010	679
2011	669
2012	667
2013 ¹⁾	660

2013: in total 660 ha
of which 67,1 ha organic

- Most of the apple cultivation is in Åland, Egentliga Finland and Nyland: 80 %
- Organic apple area distributed more evenly through the country

Organic area in red
Total area in black



Apple production in Finland

-Farm size and yield

Year	Kg/ha
1990	9058
1991	6777
1992	8127
1993	7938
1994	6616
1995	6786
1996	5783
1997	8013
1998	5114
1999	5867
2000	6407
2001	6171
2002	7107
2003	6081
2004	5383
2005	6756
2006	6027
2007	6249
2008	7350
2009	7557
2010	7250
2011	8950
2012	8215
2013	8316

Organic statistics 2007-2013

Year	ha in yielding age	ha/farm	kg/ha
2007	31	0,7	225,8
2008	19	0,4	1443,9
2009	25	0,4	960,0
2010	25	0,4	1160,0
2011
2012	40	0,7	3100,0
2013 ¹⁾	31	0,5	1629,5

Farm size and yield 2013:

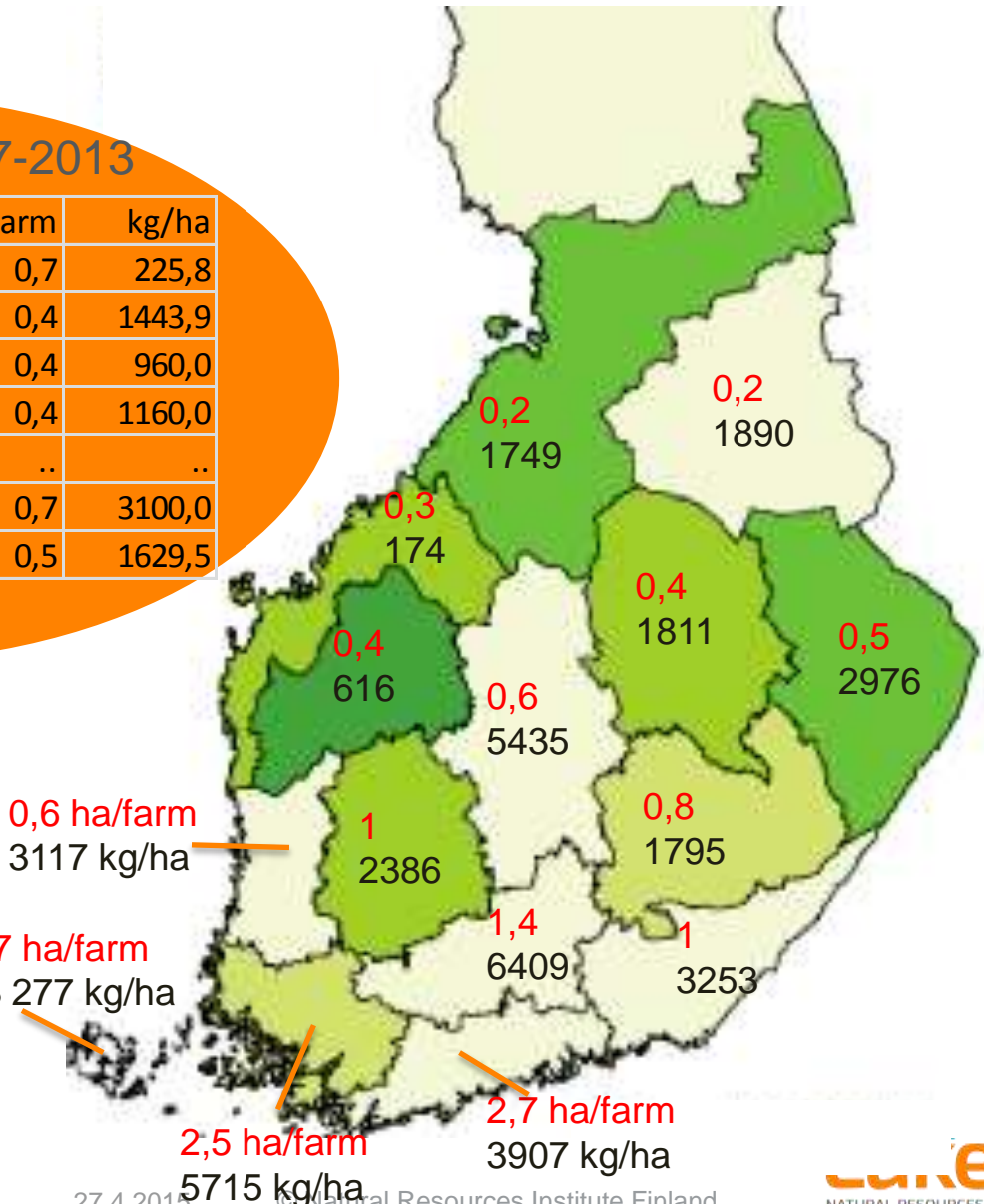
Apple area per farm in red
Yield per hectare in black

0,6 ha/farm
3117 kg/ha

6,7 ha/farm
13 277 kg/ha

2,5 ha/farm
5715 kg/ha

2,7 ha/farm
3907 kg/ha



About 5 thousand tons yearly = 6-8 % of total apple consuming

Four "schools": Åland, Pikis, Russian, local

Lajike - Sort - Variety



- Varieties cultivated in Finland (statistics 2007): Lobo 27 % of the area
- In Åland most common varieties in old plantations is Lobo and in new thick plantations Raike, Summerred, Rubinola,
- In inland most common after Lobo are Kanelit, Transparente Blanche, Amorosa, Pirja, Samo
- No particular organic variety in high volumes yet, but scab resistant varieties start to be popular for new plantations

Challenges in organic apple production

- Pests and diseases and plant protection chemicals
 - *Argyresthia conjugella* Rönnbärsmal
 - *Cydia pomonella* Äpplevecklare
 - *Venturia inaequalis* Äppelskorv
 - Fytoplasma Apple proliferation
 - *Erwinia amylovora* Pärönpäst
- Varieties
 - Scab resistance, storability, root stocks, winter hardiness
- Marketing
 - Too small plantations, too far from each other to have cooperation, too much varieties and unknown varieties, if selling to retailers -> too high price for consumers but hardly anything for the farmer
- Bureaucracy
 - Small group of farmers -> not enough voice, for example nitrate regulation
- Research and its financing
 - Only a few researchers working part-time with apple, challenge to get financing for so small production area and for applied research

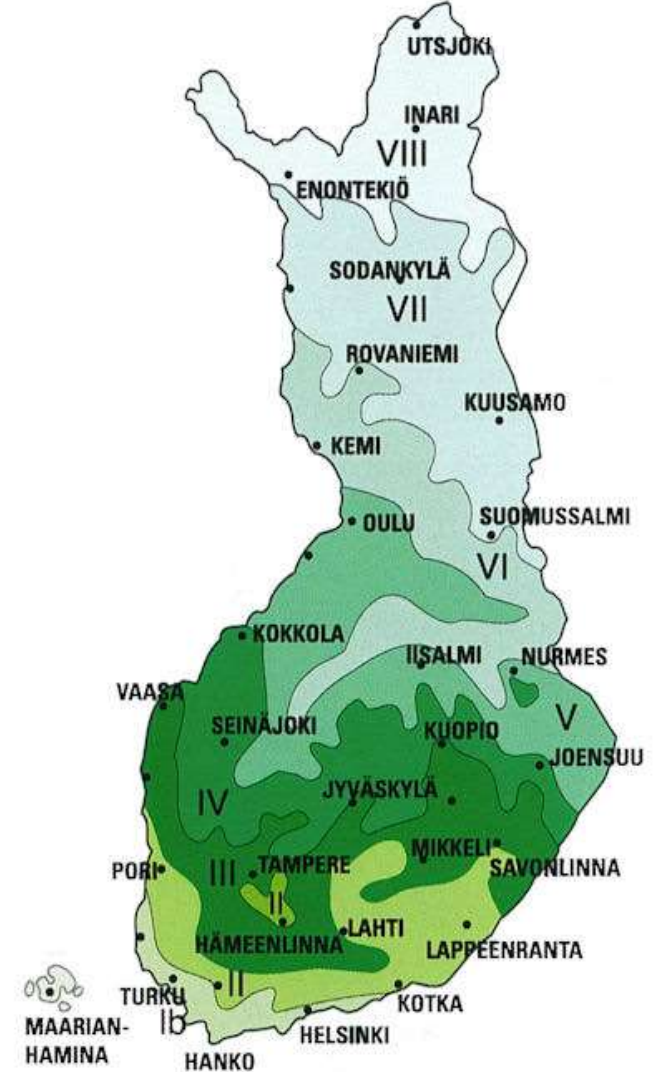
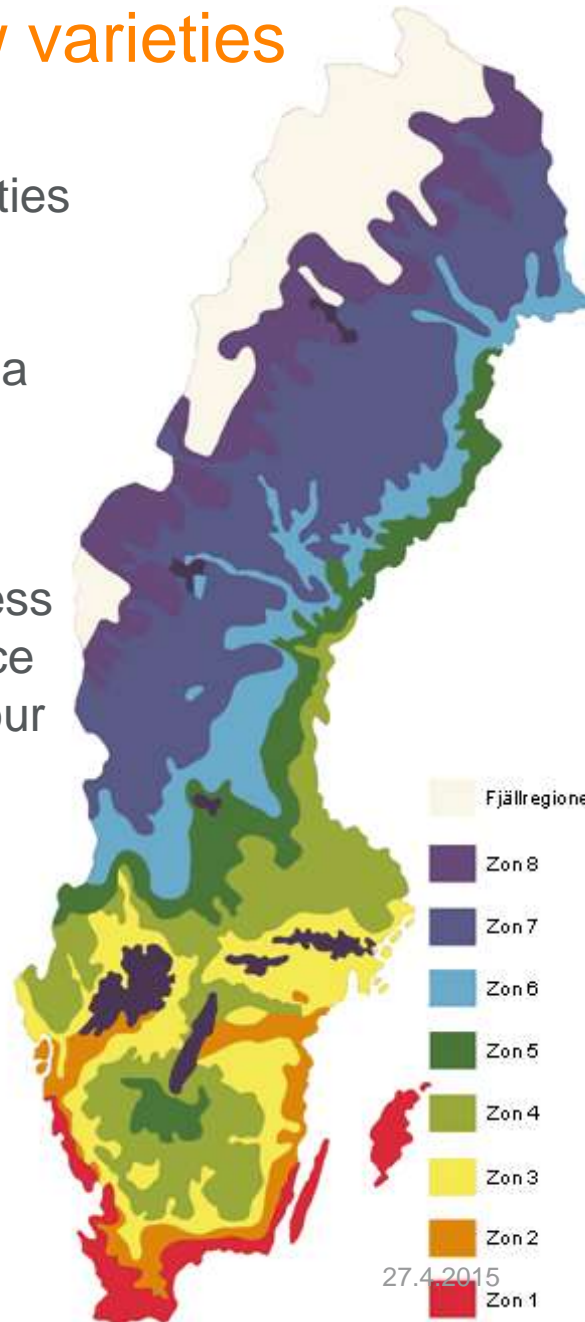
Possibilities in organic apple production

- Organic and local food are in fashion
 - Also the government has aim to increase organic production
 - Apple production in other than main areas is seen possible and even an advantage
 - New ways of marketing: for example community supported agriculture
- Varieties are starting to be available
 - Scab resistance, good winter varieties = storability
- Organic apple production is in its beginning in Finland -> chance to gather knowledge and create cooperation models before starting

Testing new varieties

Testing fruit varieties from Russia, Ukraine, Belarus, Latvia and Estonia -> aim to find varieties also to Central Finland

- Winter hardiness
- Scab resistance
- Taste and colour
- Storability



In black – For Southern Finland (I-II)
 In red – For Mid-Finland (III-IV)
 In blue – Also for the north (V-VI)

Summer varieties

Agra

Arkad letnij zholtyj

Avgusta

Ijulskoje Tshernenko

Jablotschnyj spas

Jelena

Jubiljar

Junost

Kalvil belyj letnij

Konfetnoje

Krasnoje ranneje

Mantet

Medunitsa

Metshta

Narodnoje

Orlinka

Roberts

Serebrjanoje kopytse

Solntsedar

Zhelannoje

Zhemtshuzhnoje

In black – For Southern Finland (I-II)

In red – For Mid-Finland (III-IV)

In blue – Also for the north (V-VI)



Autumn varieties

Aelita

Afrodita

Antonovka zolotaja

Druzhiba narodov

Gita

Izbrannitsa

Kovalenkovskoje

Kymppitonni

Marat Busurin

Orlovim

Orlovskij pioner

Orlovskoje polosatoje

Osennaja radost

Pamjat Isajeva

Podsnezhnik

Pärnu tuvioun

Sergiana

Severnaja zarja

Slava pobediteljam

Slavjanin

Solnyshko

Tambovskoje

Uslada

Zhanna



In black – For Southern Finland (I-II)

In red – For Mid-Finland (III-IV)

In blue – Also for the north (V-VI)



Kovalenkovskoje



ORLOVIM



Winter varieties

Aape

Alesja

Antej

Auksis

Babushkino

Beforest

Bolotovskoje

Cortland

Dace

Iedzenu

Imant

Imrus

Ivanovskoje

Jubilej Moskvj

Kandil Orlovskij

Koritshnoje novoje

Krista

Kulikovskoje

Kurnakovskoje

Martovskoje

Orlik

Orlovskaja zarja

Orlovskoje polesje

Podarok Grafskomu

Renet Karpova

Rozhdestvenskoje

Samorodok

Sinap orlovskij

Spartan

Start

Strojevskoje

Studentsheskoje

Svezhest

Sweet sixteen

Teremok

Tshistotel

Venjaminovskoje

Zarja Alatau

Zvezdotshka

In black – For Southern Finland (I-II)

In red – For Mid-Finland (III-IV)

In blue – Also for the north (V-VI)







Strojevskoje

© Natural Resources Institute Finland



Venjaminovskoje

Pears

Djuimovotshka

Kafedralnaja

Karamelnaja

Lada

Skorospelka iz Mitshurinska

Tshizhovskaja

Vidnaja



In black – For Southern Finland (I-II)

In red – For Mid-Finland (III-IV)

In blue – Also for the north (V-VI)

Plums

Diploid plums

Kubanskaja kometa

Skoroplodnaja

Podarok Sankt-Peterburgu

Hexaploid plums

Evrazia21

Garmonija

Renklod mitshurinskij



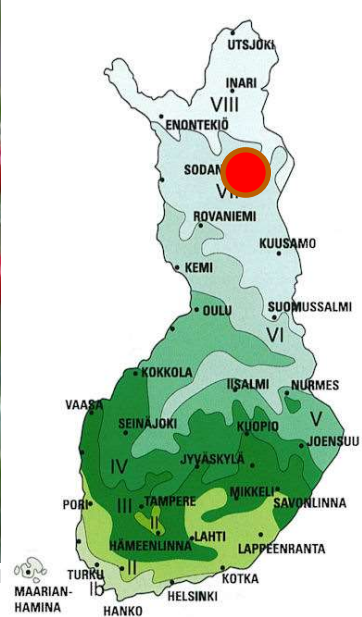
In black – For Southern Finland (I-II)

In red – For Mid-Finland (III-IV)

In blue – Also for the north (V-VI)



Sour cherry Schedraja has succeeded in zone VII in Salla, Lapland



Thank you!