



What is Soilfood?

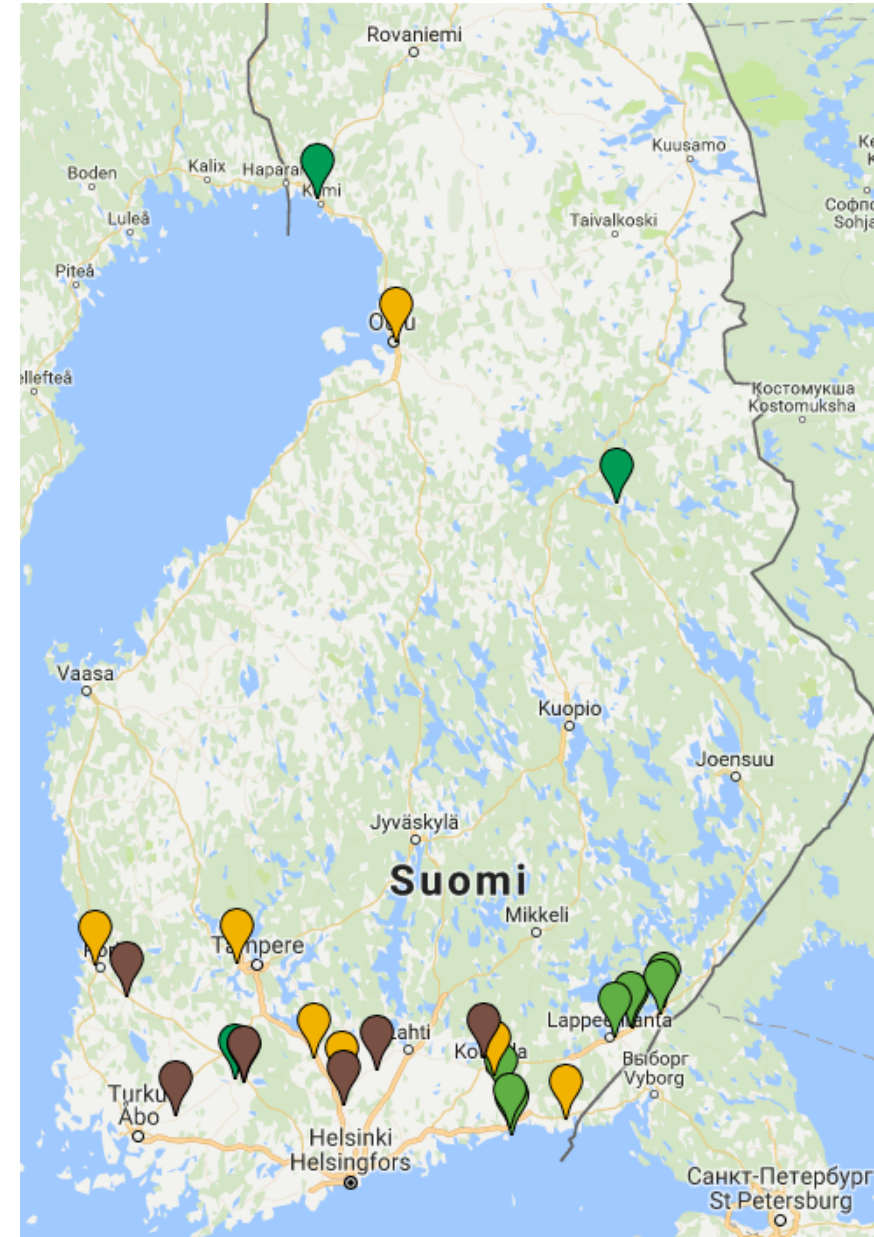
Tampere 23.11.

**SOIL
FOOD**

- Sidestreams recycled from 26 factories
- Spread over 15 000 hectares (0,8 % of cultivated area of Finland)
- 17 employees
- Estimated turnover 4 MEUR in 2017
- Operation is based on strong partnerships

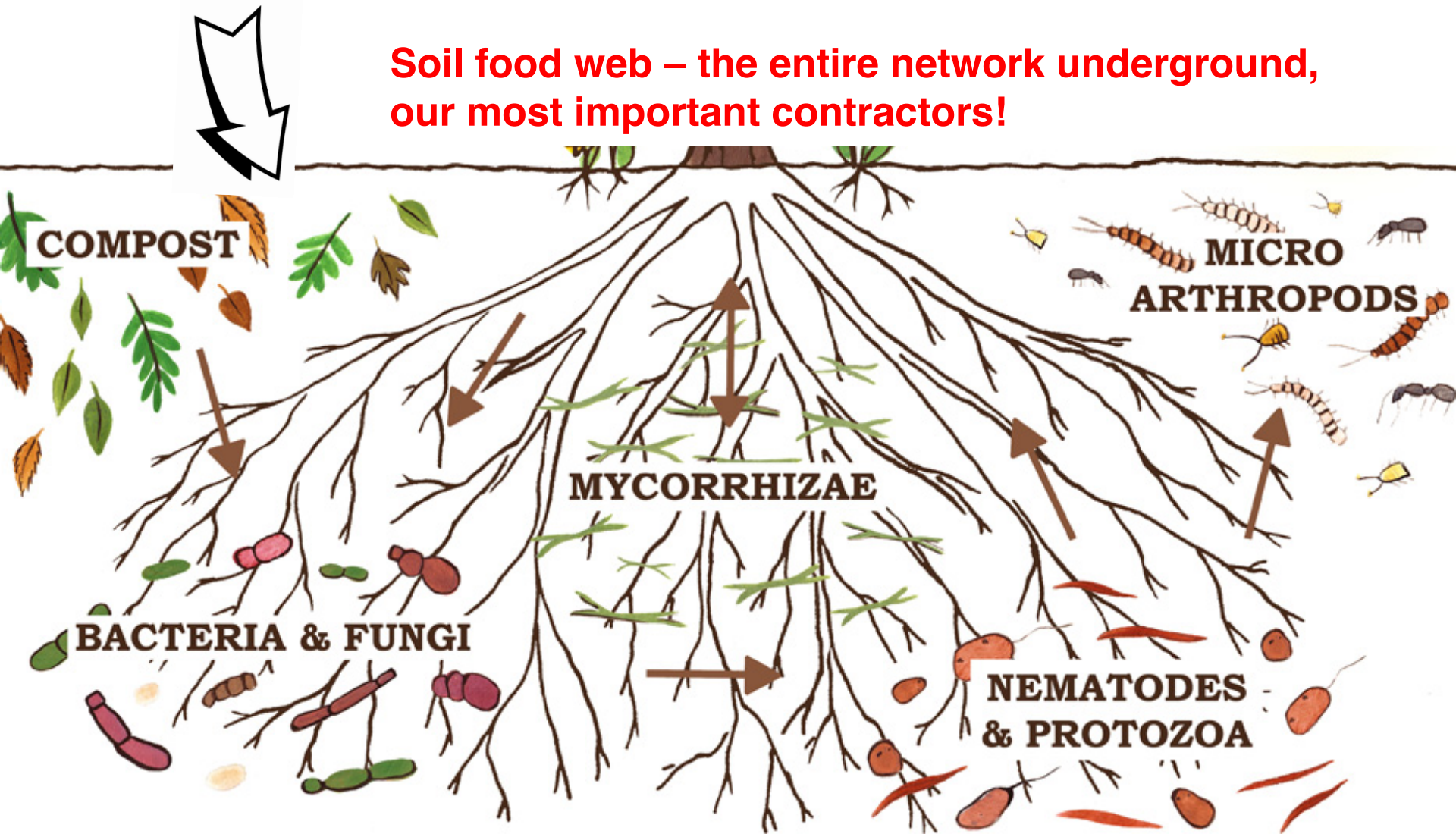
Results from Tattari farm

- Yields of organic winter wheat have more than doubled in three years.
- Medium yield in 2017 was 4600 kg and revenue 1900 €/ha (average 480 € in Finland).
- Fertilizer costs have not increased.




WHY SOILFOOD?

**Soil food web – the entire network underground,
our most important contractors!**

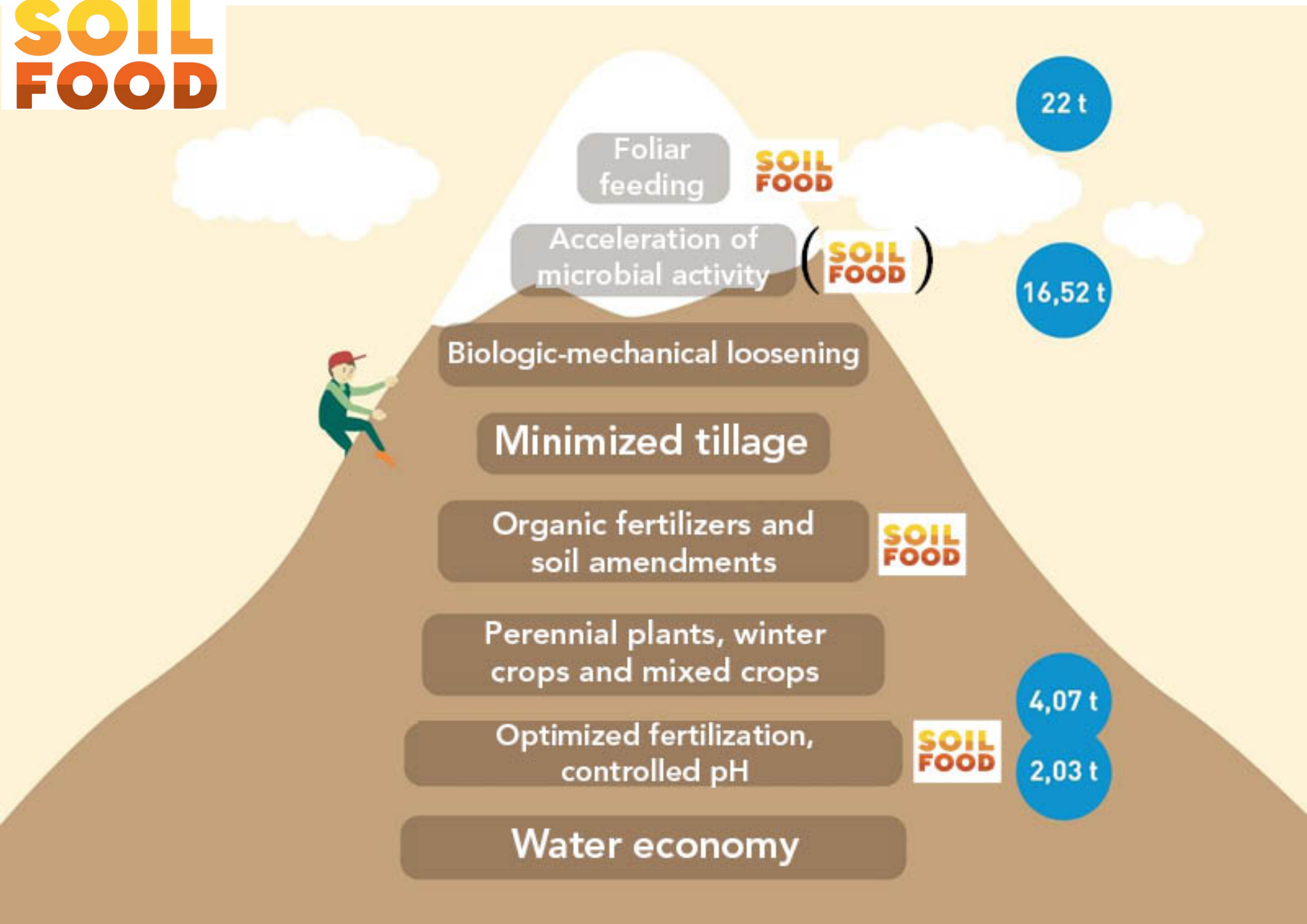


Soil is essential

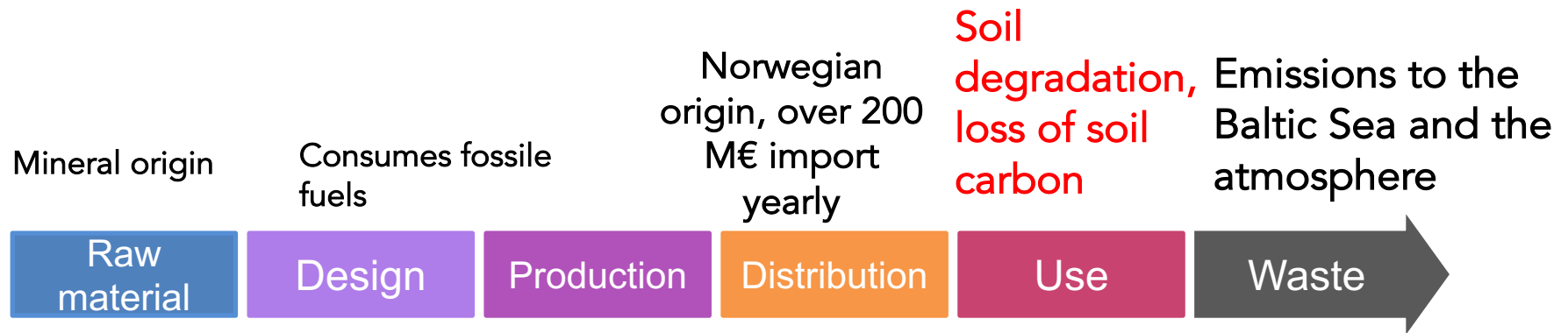


Healthy soil absorbs CO₂ and produces higher yields with less emissions to water and air.

SOIL FOOD

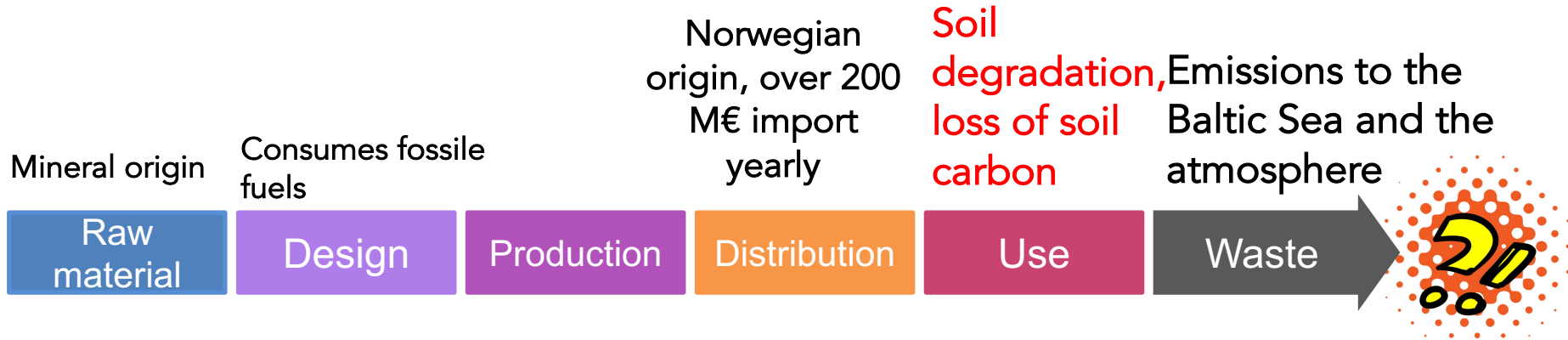


How are fields fertilized at the moment?

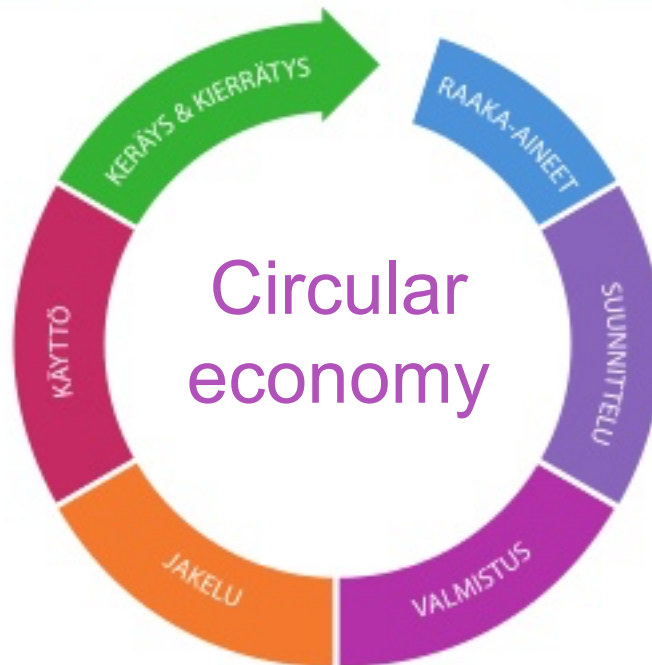


The production of 1 kg of inorganic nitrogen consumes 0,92 kg of fuel = 1,09 litres

Change in fertilization



CROP
ROTATION
MODEL AND
KNOW-HOW



NUTRIENT RECYCLING:
High knowledge base
and know-how, nutrients
added where they are
needed.

Intelligent and
profitable recycling –
NO for dumping

- Inexpensive for industry and farmers with less emissions
- Productive fields → profitable and environmentally sustainable farming
- Self-sufficiency in nutrients = **food security**
- Reversing climate change

- Only with high agronomical know-how can recycled fertilizers and soil amendments be used on a wider scale
- Recycled fertilizers and soil amendments to be used where needed; crop and soil specific demand for nutrients
- Only then can we talk about fertilization and soil improvement, **not dumping of waste!**

3 people and ca. 100 000 € yearly funding

Examples of studies and topics

- PÄÄSTÖSÄÄSTÖ: the impact of organic soil amendments on nutrient emissions and soil properties
- OSMO project: improvement of farmers' know-how on soil
- NSP Pulp: crop available nutrient supply and environmental impacts of soil improvement fibres
- Risks related to pollutants in sewage sludge

Our partners:





The Biofore
Company



storaenso



Metsä

Gasum

KOTKAMILLS



Imatran Lämpö



EnvorGroup
ympäristön ykkönen



Kouvola
Vesi Oy



HAMINAN
ENERGIA OY

SULZER

KYMENLAAKSON
JÄTE

Recycled nutrients 2016



280 t N

80 t P

60 t K

100 t S

10 300 ha

Sequestration of carbon (2016)

28 000 t

CO₂ emissions saved by reusing instead of burning fibrous masses.

+ 5400 t

CO₂ emissions saved by replacing calcitic lime with recycled lime.

+ 1000 t

CO₂ emissions saved by replacing mineral nitrogen fertilizers.

- 1000 t

CO₂ emissions from logistics

= 33400 t

of which

11 000 t

sequestered as stable organic compounds in the soil.



Yaran ja Soilfoodin lannoitehinnat esille

Lannoitteiden hinnat MT 31.10.2016

Valmistaja	Tuote	N	P	K	S	e/tn
Berner hintoihin lisätään rahti sekä alv 24 %	Peltolannoitteet					
	YaraMila Y 1 650 kg	27	1,3	4		277
	YaraMila Y 2 650 kg	27	2,6	3		280
	YaraMila Y 3 650 kg	23	3	8		292
Muiden lannoitteiden hinnat saa viljelijän Berneriltä viljelijanberner.fi	YaraMila Y 4 650 kg	20	2	12		294
	YaraMila NK 1 650 kg	25	0	7		269
	YaraMila NK 2 650 kg	22	0	12		282
	Yara Y 4 Hiven 650 kg	20	2	11		312
	Typpilannoitteet					
	YaraBela Suomensalpiet. 650 kg	27	0	1		217
	YaraBela Seleenisalpiet. 650 kg	27	0	1		227
	YaraBela AXAN 650 kg	27	0	0		206
	Kloorivapaat lannoitteet					
	YaraMila HeVi 1 650 kg	8	5	19		538
	Yara HeVi 2 650 kg	11	1,9	23		548
	YaraMila HeVi 3 650 kg	11	5	18		520
	GreenCare Pro Extra 600 kg	3	0	0		745
	GreenCare Pro Ca/Mg -rav. 600 kg					550



Soilfood www.soilfood.fi	Oulu Ravinneliete	4,5	1,7	0,6	0,6	3,2 ¹⁾
	Hämeenlinna Ravinneliete	15,0	0,5	7,5	18	7,0 ¹⁾
	Forssa Ravinneliete	3,6	0,8	0,9	0	3,2 ¹⁾
	Riihimäki Ravinneliete	4,5	1,7	0,6	0,6	3,2 ¹⁾
	Kouvola Ravinneliete	5,0	0,9	0,7	0,3	3,2 ¹⁾
	Kaakon Ravinneliete ³⁾	5,3	0,5	1,7	0,2	11,0 ¹⁾
	Hämeenlinna Maanparannusl. ³⁾	16,0	3,4	1,4	18	5,0 ¹⁾
	Kotka Ravinnekuitu ³⁾	3,7	1,1	0,2	1,1	5,0 ¹⁾
	Imatra Ravinnekuitu ³⁾	3,9	0,3	0	1,4	5,0 ¹⁾
	Typpirikikkide	210	0	0	220	189 ²⁾
	Typpirikkilliuos	74	0	0	82	67 ²⁾

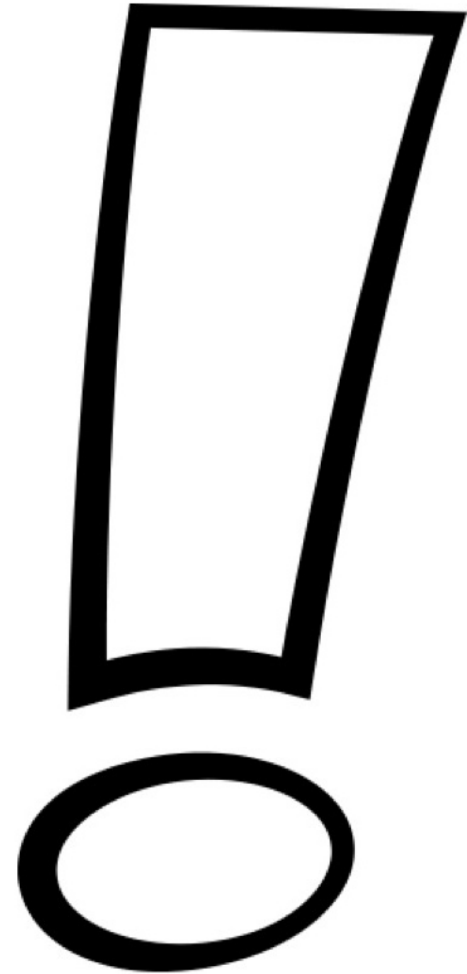
1) Hinta 50 kilometrin etäisyydelle laitoksesta peltoon levitettynä. Etäisyys laitoksesta vaikuttaa hintaan. Kysy tarjous myös, jos haluat itse levittää tuotteen.

2) Hinta ilman rahtia ja levitystä.

3) Käy luomun.

The farmer is not the problem but the solution

Restoring carbon to the soil is the only way to reverse climate change!





Thank you!