



Gunnar Rundgren

Organic agriculture as a
management system for the
planet?

Farming = management of the planet

	Area (%)	Net primary production (%)	Population (billion)
Dense settlements	1.11	1.4	2.57
Villages	5.9	7.7	2.56
Croplands	20.8	32	0.93
Rangelands	30.4	15.5	0.28
Forests	19.4	32.8	0.04
Wildlands	22.5	10.7	0

Many social & environmental challenges

- Shrinking biodiversity
- Destabilized global cycles
 - Carbon
 - Nitrogen
- >100,000 chemicals
- Depletion of resources
 - Minerals
 - **Energy**
- Eroding landscape & culture
- Depopulation of country-side
- Lack of trust in the food system
- 1 billion starving - even more eat too much.
- Farming is not profitable at all in most places

Organic has many - but not all - answers



Gunnar Rundgren Danish Organic Congress 2013



Gunnar Rundgren Danish Organic Congress 2013

Organic Matter

- It takes 50-500 years to build one centimeter of soil
- It only takes a generation to destroy 20-30 cm of topsoil
- Many civilizations collapsed because of erosion
- Soil organic matter is the biggest terrestrial carbon stock
- There are no national or international conventions to preserve the soil







Japan

- Value of agriculture production in Japan 9.5 trillion Yen (some 120 billion dollars at today's rate)
- Value of the ecosystem services were estimated to 8.2 trillion Yen, i.e. almost at par with the production value.





Carbon Payments





2 000 KR
/ HEKTAR GRÖDA
SOM TORKAS



6 KR / 10 M



180 KR/ST



60 KR/ST

To "sell" the environment

...to use market mechanisms to take care of nature resources and ecosystem services, e.g. carbon credits, payment for ecosystem services

- In the short term *perhaps* an efficient way to manage some environmental problems

But...

- Leads easily to a *very bureaucratic system of subsidies and controls*
- Eco system services are very complex and sometimes competing
- Most worrying is the long term perspective of *privatization of nature.*
- Should farmers in poor countries bind "our carbon" to allow us to continue our life style?



Is there willingness to pay?



Payment is far from enough

Sweden (2012)

- Value of agriculture production (farm gate): 55 billion SEK
- Value of public support: 11 billion SEK
- Value of environmental public support: 1 billion SEK

Organic: integrating agriculture and eco system services?

- Organic delivers multiple services and food & fibre.
- "Optimal standards" will look different for eco system services than for food.
- Control system will expand...

What is more important?



Uppsala Naturbete

Naturbetade marker, ekologiskt lammkött & fårfällar från svensk lantras

[Start](#)

[Om oss](#)

[Naturbete](#)

[Gutefår](#)

[Våra tjänster](#)

[Beställ ekologiska lammlådor](#)

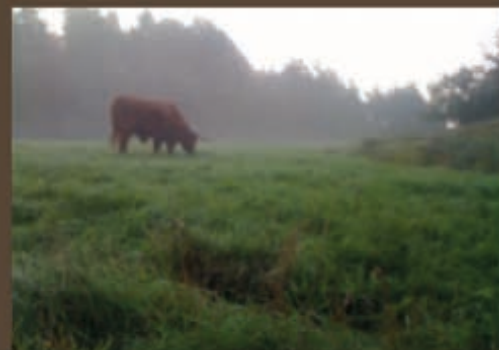
[Kontakta oss](#)

[Gästbok](#)

[Länkar](#)



Naturbetesmarkerna - en viktig resurs



Traditionellt hävdade och ogödslade fodermarker (naturbetesmarker och ängar) har en flora och fauna som har utvecklats under århundradens nyttjande.

Idag hyser dessa marker en hög mångfald av växter och djur, av vilka många är hotade.

Enligt Ängs- och betesmarksinventeringen (2002–2004) återstår idag endast 464 300 hektar

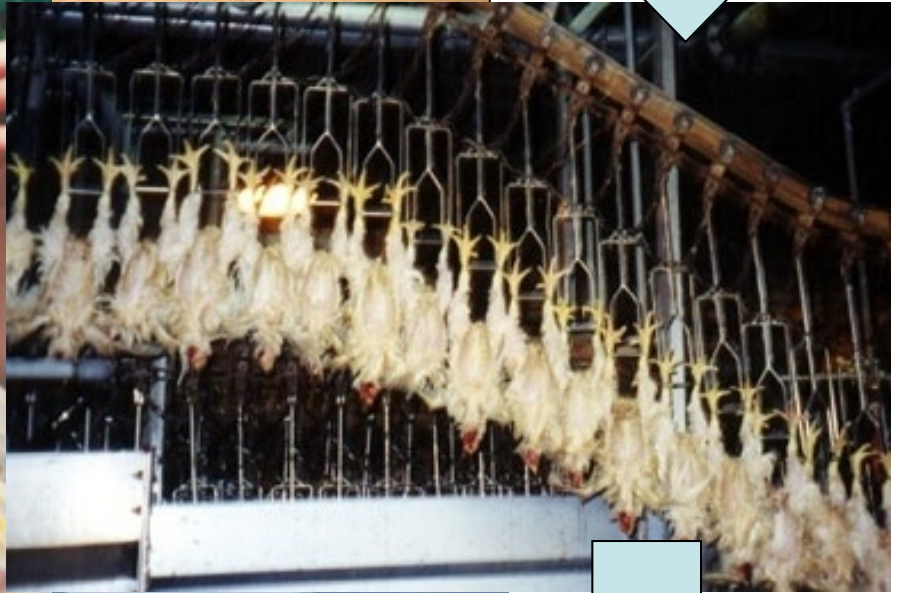
Splitting or integrating?

Can you integrate different orientations?

- Volume production farms
- Niche quality farms
- Experience/visit/educational farm
- Eco system services farms

Conventional food system

- Linear flows - high energy input
- Competition
- Commercialization
- Externalization of costs - someone else pay.
- Industrialization of all parts of chain
- Marketing & advertizing



Gunnar Rundgren Dar

Regenerative food system

- Regeneration of resources
 - Land, biodiversity, inputs, labour and meaning
 - Cooperation and co-production
 - Integration food, farming, people, landscape and culture
 - Communication and dialogue
- "Touch the hand that feeds you"*



Gunnar Rundgren D