Organic greenhouse production in Norway

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New EU-regulations

- Greenhouse vegetables must be grown in soil with contact to subsoil

- Not included: flowers and herbs sold together with growth media.

- Lettuce: unsure
Norway today

• All but one organic greenhouse grower, grow vegetables in growbags.
Bilde 1) Økologisk av tomat (venstre) og agurk (høyre) i begrenset medium. Foto Astrid S. Andersen
Økologisk tomatproduksjon i bakken. Foto Astrid S. Andersen.
### Pro’s and con’s

<table>
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<th>Pros</th>
<th>Cons</th>
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<td>Bigger soil volume per plant can give better effect of organic fertilizer</td>
<td>Many growers would have to make big investments to change productions system</td>
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<td>Soil pathogens</td>
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<td>Accumulation of nutrients (salts)</td>
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<td>Generally lower yields in this production system compared to growbags</td>
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Contentious inputs from organic greenhouse production

- Plastic (bags, flor cover, lines, pots)
- Energy (heat, light)
- Peat (In total about 150 m3 of peat a year in tomato)
- Organic fertilizer from non-certified organic production
Size of production

• Total organic production under glass/plastic according to Debio 2017 was app. 51 daa

• App. 27 daa of this is tomato, cucumber, lettuce, herb and ornamentals

• The rest is most likely small plant production for field production, and small greenhouse productions.
Økologiske tomater i veksthus. Foto Astrid S. Andersen