

# *Permakai introduction to intensive vegetable production*

## **Introduction to market gardening**

- Health and Safety
- Farm introduction
- Permaculture basics
- Importance of water, soil, shelter, land aspect, sun, and wind.
- Soil structure (separation test)
- Basic plant biology

<a href="http://www.growbiointensive.org/PDF/FarmersHandbook.pdf">http://www.growbiointensive.org/PDF/FarmersHandbook.pdf</a>	
The Sustainable Vegetable Garden, by John Jeavons and Carol Cox, 1999	
Elaine Ingham's food web	
Grow biointensive youtube playlist	

## **Bed Preparation**

- Turning pasture into beds
- Double digging
- Broad forking
- Use of mechanical cultivator
- Watering
- Tarping
- No-till methods

Inventory of the tools available for the modern market gardener as mentioned by Elliot Coleman, JM Fortier, and others <ul style="list-style-type: none"><li>• Hoes, rakes, seeders, tilters</li><li>• Rapid, BCS, Grillo, Planet Junior, Hoss, Terratech, Farmall</li><li>• ....</li></ul>	
Notes from Charles Dowding no-till method	
<a href="https://www.charlesdowding.co.uk/no-dig-growing/why-no-dig/">https://www.charlesdowding.co.uk/no-dig-growing/why-no-dig/</a>	

## **Composting**

- Chipping
- Making compost 12-2-1 ratio

- Monitoring temperature
- Organic standard
- Making compost tea
- Biochar
- Biodynamic preparations

Read the relevant chapters in How to Grow More Vegetables (HTGMV)	
Attend a Compost Collective workshop	

## Seeds and planting

- Making seed boxes
- Sowing seeds
- Transplanting various crops to show different spacings
- Pricking out and potting on
- Exploring optimum spacings
- Staking and support
- Watering

HTGMV section on plant spacings and how these differ from conventional spacings e.g. as mentioned on seed packets.	
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## Increasing soil fertility

- Making and using
  - biochar
  - Foliar sprays
  - weed management
  - mulching

<a href="https://modernfarmer.com/2016/03/carbon-farming/">https://modernfarmer.com/2016/03/carbon-farming/</a>	
No-till, no dig - Charles Dowding	
Biochar production <a href="https://www.youtube.com/watch?v=QJOOg89JH30">https://www.youtube.com/watch?v=QJOOg89JH30</a>	

## Crop planning

- Koanga crop classification.
- Crop rotation and crop planning.
- Companion planting

Koanga chart.	
Using Permakai crop planning spreadsheet resources	
<a href="https://garden.org/learn/articles/view/4012/">https://garden.org/learn/articles/view/4012/</a>	

HTGMV: Companion Planting and Rotations	
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## Planting by the moon calendar

- Introduction to bio-dynamics and the bio dynamic calendar

<a href="http://oregonbd.org/on-line-class/">http://oregonbd.org/on-line-class/</a>	
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Bio dynamic farming and gardening calendar	
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## Seed saving

- Harvest seeds
- Making and using seed sieves

<a href="http://www.koanga.org.nz/knowledgebase/seed-knowledge/seed-saving/seed-saving-instructions/">http://www.koanga.org.nz/knowledgebase/seed-knowledge/seed-saving/seed-saving-instructions/</a>	
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## Perennials

- Food forest design basics.

Martin Crawford videos on food forest <a href="https://www.youtube.com/watch?v=b_fhAch5qiY&amp;list=PL39F5099E11FF7B5C">https://www.youtube.com/watch?v=b_fhAch5qiY&amp;list=PL39F5099E11FF7B5C</a>	
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U-pick orchard <a href="https://www.youtube.com/watch?v=3riW_yiCN5E">https://www.youtube.com/watch?v=3riW_yiCN5E</a>	
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## Using animals

- Basic cow management
- Care and use of chickens
- Other animals :ducks, pigs, sheep, and horses

Regenerative handbook	
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<a href="https://modernfarmer.com/2016/03/carbon-farming/">https://modernfarmer.com/2016/03/carbon-farming/</a>	
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Chickens <a href="https://www.youtube.com/watch?v=KYWzytyNw4s">https://www.youtube.com/watch?v=KYWzytyNw4s</a>	
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## Wrap up

Revision and filling in the gaps

Final report on learning - a brief report on each of the topics.	
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