



Principles of Organic Vegetable Growing

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Location & Site Requirements

- Accessible, close to your market, population
- South facing if possible
- Open but not exposed site
- Soil suitable for organic vegetable growing

Soil Requirements

- A well drained soil is necessary
- Soil texture - Sand, Silt and Clay
- Good soil structure – not too compacted
- Take soil samples – pH, P,K, micronutrients, OM

Soil Index	Nutrient Supply	Fertiliser Response
1	Very Low	Definite
2	Low	Likely
3	Medium	Unlikely
4	High	None

Soil

- Build soil fertility – Green manures, composts, farmyard manures (can get tested)
- Remove weeds – do not allow weeds to go to seed
- Keep ground covered using fertility building crops (green manures) to suppress weeds

Crops suitable for one year fertility-building	
Suitable for over-winter	
Legumes	Non-Legumes
Red clover	Grazing rye
White clover	Ryegrass
Vetch	Mustard
Field Beans	Phacelia
Lucerne	Chicory

Crop Rotation – Why?

- Maintain soil quality
- Avoid pest and disease build-up
- Reduce weed problems
- Growing a number of crops spreads risk

Vegetable Plant Families

Beetroot Family	Cucumber Family	Carrot Family	Cabbage Family	Pea & Bean Family	Lettuce Family	Onion Family	Potato Family	Grass Family
Beetroot	Cucumber	Carrot	Brussels Sprouts	French bean	Chicory / endive	Garlic	Aubergine	Sweet corn
Spinach	Squash	Celeriac	Broccoli	Runner bean	Lettuce	Leek	Pepper	Grazing rye
Swiss chard	Courgette	Celery	Kale	Broad bean	Salsify	Onion	Potato	All grasses
Spinach beet	Pumpkin	Fennel	Cabbage	Pea		Shallot	Tomato	
	Marrow	Parsley	Swede	Clover				
		Parsnip	Kohlrabi	Lucerne (alfalfa)				
			Cauliflower	Lupin				
			Calabrese	Trefoil				
			Radish	Vetch / Tares				
			Turnip					
			Mustard					
			Oriental Brassicas					

Example Rotation

Year	Crop	
One	Grass and Red Clover, Fertility Building	In Conversion to Organic Production
Two	Grass and Red Clover, Fertility Building	
Three	Brassicas	
Four	Peas, Beans, Lettuce, Other Salads	
Five	Onions, Leeks, Courgettes	Compost / Manure Applied
Six	Roots, Beetroot and Spinach Family, Winter Green Manures	

- Restart the cycle in Year 2
- Green manures alone are not sufficient in this rotation and compost and manures critical

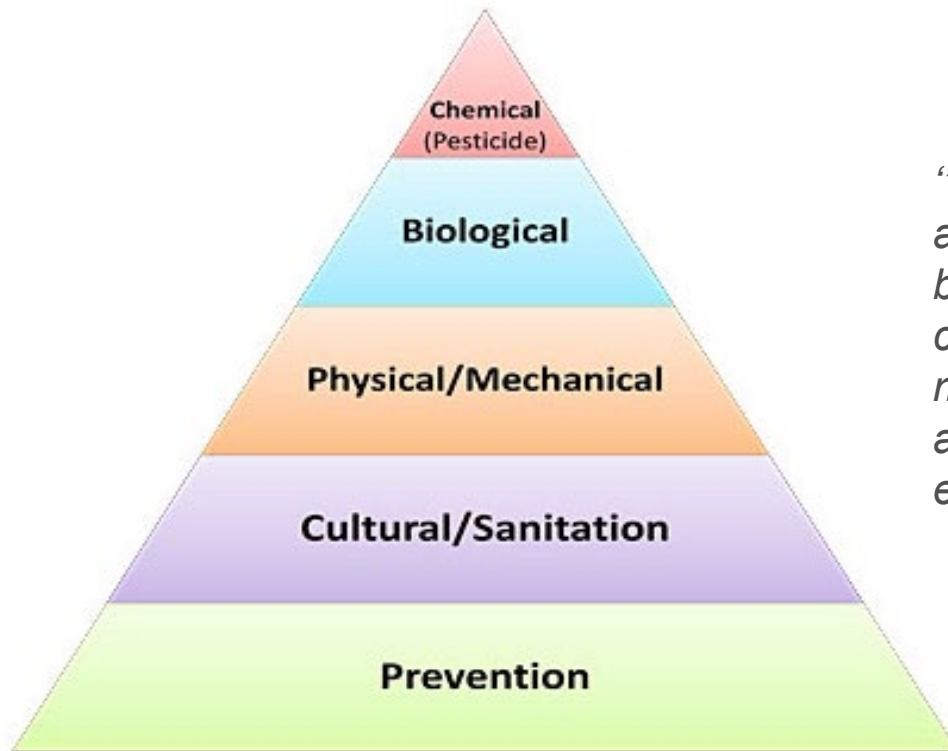
Where to get Seed and Plants?

Teagasc publication –

A Guide to Vegetable Growing – 9th
Edition

<https://www.teagasc.ie/publications/2020/a-guide-to-vegetable-growing---9th-edition.php>

Integrated Pest Management



“Integrated Pest Management is defined as an intelligent crop management system based on the coordinated use of multiple control agents and other control factors to maintain pest and pathogen populations in a way that minimises economic, environmental and health risks.”

Weed Control

- Crop rotation
- Well timed weeding – not too early or too late
- Transplanting – allows crops to get ahead of the weeds
- Cultural methods – Stale seedbed, mulches, crop densities, adjusting sowing dates
- Hand weeding
- Mechanical weeding – hoes, flame weeders, brush weeders
- Robotic weeders

Flame Weeder



<https://www.fruithillfarm.com/tools/terratek-market-gardening-tools/farmer-s-friend-thermal-weeder.html>

Brush Weeder



<https://www.edwardsfarmmachinery.com/farm-machinery/used/fobro-inter-row-brush-weeder>

Robotic Weeder



<https://garford.com/gallery/robotic-inter-row-weeder/>

Mechanical Hoe



<https://afdj.com.au/lenken-steketeer-ec-weeder-with-deltarow-is-ideal-for-specialist-crops/>

Pest Control

- Crop rotation
- Encouraging natural predators in the ecosystem
- Using barriers – Fleece, bio-nets
- Timing of sowing/planting – E.g. June sowing of carrots
- Introduction of predators – More common for protected crops
- Problem avoidance and early identification – monitoring

Pest Control



Fleece covering a swede crop giving earliness and protection against pests

Disease Control

- Crop rotation
- Resistant varieties
- Site selection and soil fertility
- Good husbandry – Creating optimal conditions for the crop
- Hygiene – Certified seed, clean plants, dump crop debris properly, clean machinery
- Problem avoidance and early identification – monitoring

Extending Your Season

Fleeces and Meshes – Protection from frost and pests

Polytunnels or Spanish Tunnels

- Allows early and late production
- Alternative crops
- Cheaper alternative to glasshouses

Glasshouses

- Allows the best early and late production
- More stable growing environment than polytunnels
- Expensive but long lasting

Regulations

Register as a Food Business Operator with DAFM

Two main Organic Certification Bodies

- Organic Trust
- Irish Organic Association

Required to market your produce as 'organic'

Annual on farm audits



Organic Horticulture Education Courses

Organic Centre, Co. Leitrim – Level 5 Organic Horticulture Course -

<https://www.theorganiccentre.ie/>

The Organic College, Co. Limerick – Level 5 and 6 Certificate in Horticulture -

<https://www.organiccollege.com/>

Kinsale College, Co. Cork – Level 5 Sustainable Horticulture -

<https://www.kinsalecollege.ie/sustainable-horticulture-permaculture-5/>

Organic Growers Ireland – Organic Internship Programme -

<https://organicgrowersireland.ie/internships/>

Teagasc Organic Courses – Level 5 - <https://www.teagasc.ie/rural-economy/organics/training/>

National Organic Training Skillsnet - <https://notes.ie/>

Grants Available

Organic Farming Scheme -

<https://www.gov.ie/en/service/d46aec-organic-farming-scheme/>

Organic Capital Investment Scheme -

<https://www.gov.ie/en/publication/24875-terms-and-conditions-of-the-organic-capital-investment-scheme-ocis/>

Organic Processing Investment Scheme -

<https://www.gov.ie/en/service/51e8d-organic-processing-investment-grant-scheme/>

Useful Links

Register as a Food Business Operator with DAFM -

<https://www.gov.ie/en/publication/10876-registering-as-a-food-producer-what-you-need-to-know/>

Organic Certification Bodies

- Organic Trust - <https://organictrust.ie/>
- Irish Organic Association - <https://www.irishorganicassociation.ie/>

Teagasc – A Guide to Vegetable Growing – 9th Edition:

<https://www.teagasc.ie/publications/2020/a-guide-to-vegetable-growing---9th-edition.php>

Soil Association - <https://www.soilassociation.org/>



Thanks for Listening

Any Questions?