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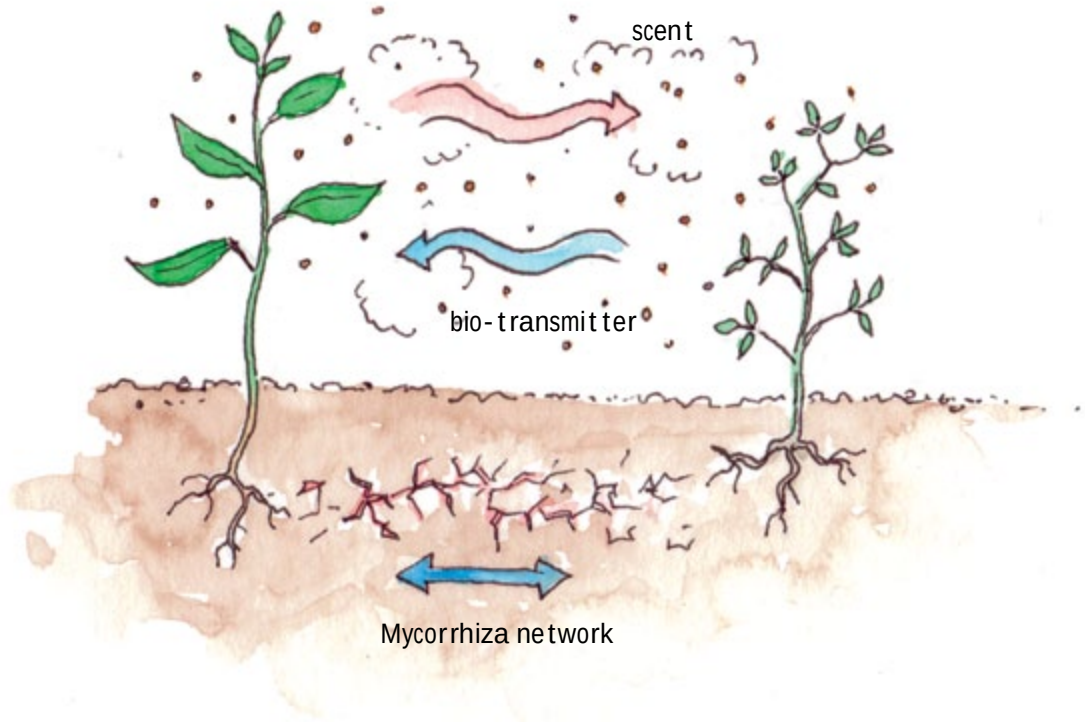
Efficient gardening: How to plant what, and where

In 1981, following his developing a ground-breaking model of permanent agriculture (“permaculture”), the Australian Bill Mollison won the prestigious Right Livelihood Award (also known as the Alternative Nobel Prize).

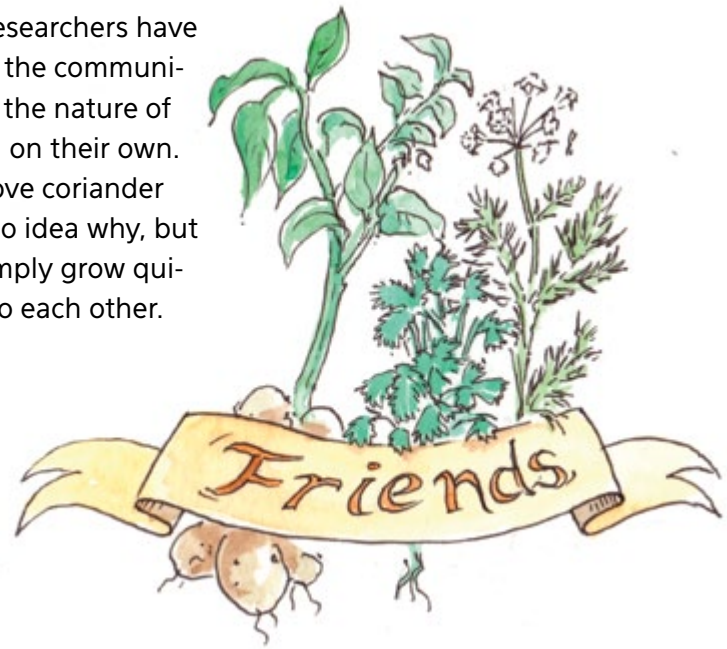
Today, his revolutionary ideas about fully ecological sustainability have spread all over the world. Mollison’s work provides a different approach to agriculture that enables a stable balance between planting and harvesting.

As he shows, for truly efficient gardening no artificial fertilizers or pesticides are needed. Permaculture takes account of insects and animals and provides a fully functioning closed system. Once we understand this we can get much closer to nature itself.

It is important to understand how different plants influence each other. Plants are living beings and communicate via scents and biological transmitters on a level that our senses cannot reach.



Even top international researchers have not yet fully deciphered the communications between plants, the nature of which are a whole world on their own. For example, potatoes love coriander and caraway. We have no idea why, but it works; these plants simply grow quicker when placed next to each other.

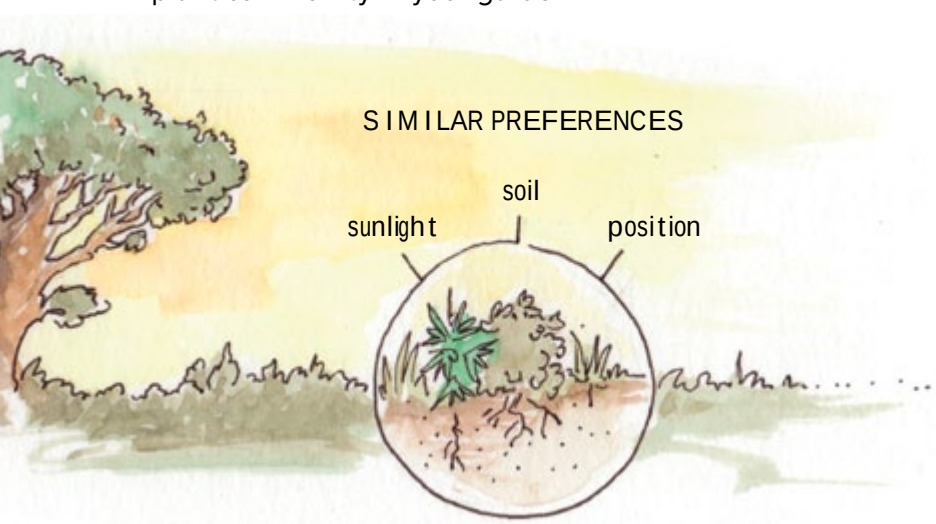


For us as gardeners it is important to realize that nature consists of much more than our minds can grasp. Nevertheless, there is a way to observe, study and learn from it. Experience helps a lot and successful gardeners spend almost every day close to their plants.

In doing so, they gain knowledge about nature that is deeper than anything one can learn from a book. They won't be able to tell you why garlic dislikes cabbage. But they will be able to tell you exactly how they found out.

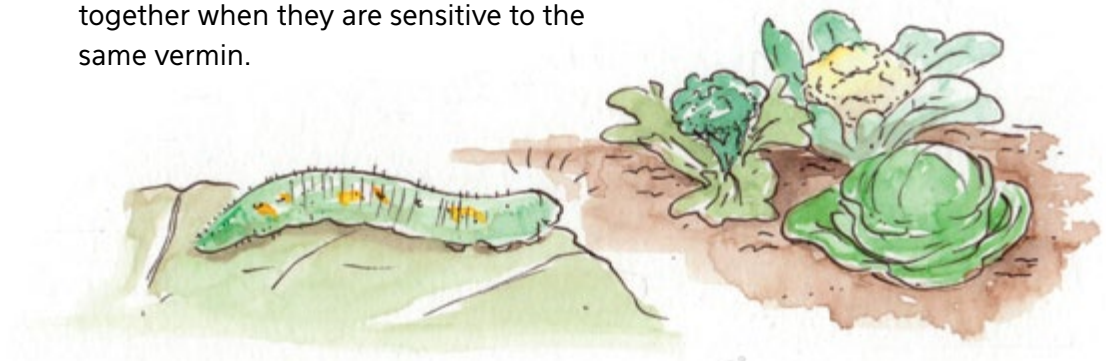
Good neighborhoods versus bad neighborhoods

If certain plants are grown close together they jointly benefit from being near each other. Incompatible plants, on the other hand, cannot be grown together. In nature you only find plants growing together that have similar preferences regarding soil, sunlight and position. They release root excretions into the soil and absorb micronutrients. If well combined, they fertilize each other and don't disturb their neighbor's leaves or growth. This knowledge is crucial for establishing a healthy plant community in your garden.



Pest control is another important factor. We need to avoid putting plants together when they are sensitive to the same vermin.

EXAMPLE: white cabbage butterfly caterpillar loves brokkoli, cabbage and cauliflower. Best not to place them next to each other.



Here is a list of good and bad plant neighbors to provide you with a basic guideline when planning your patches.

Plant	Good neighbors	Best not grown with
Beans	Savory vegetables, strawberry, cucumber, celery, beetroot, lettuce, cabbage, tomato	Peas, fennel, garlic, leeks, onion
Endives	Fennel, cabbage, leeks	Beans
Peas	Dill, fennel, cucumber, cabbage, corn, carrots, kohlrabi, lettuce, radishes, zucchini	Beans, potato, garlic, leek, tomato, onions
Strawberry	Beans, starflower, garlic, lettuce, leeks, radishes, spinach, onions, chives	Cabbages
Fennel	Endives, peas, lamb's lettuce, cucumber, lettuce, sage	Beans, tomato
Cucumber	Beans, dill, peas, fennel, cabbage, lettuce, caraway, leek, corn, beetroot, celery, onions	Radish, tomato
Potato	Beans, cabbage, kohlrabi, caraway, corn, spinach, coriander	Kale, pumpkin, tomato, celery, sunflower

Plant	Good neighbors	Best not grown with
Garlic	Strawberry, cucumber, raspberry, lilies, carrots, roses, fruit trees, tomatoes, beetroot	Peas, cabbage, beans
Cabbage 	Beans, dill, endives, peas, potato, lettuce, leeks, celery, spinach, tomato	Strawberry, garlic, onions, mustard
Kohlrabi	Beans, peas, potato, lettuce, tomato, radish, beetroot, celery, spinach, leek	(No special preferences)
Lettuce	Beans, dill, peas, strawberry, cucumber, cabbage, leek, carrots, tomato, onions	Parsley, celery
Leek	Strawberry, carrots, cabbage, lettuce, celery, tomato	Beans, peas, beetroot
Carrots	Caraway, peas, garlic, leek, radishes, tomatoes, onions, chives	
Radish 	Beans, peas, cabbage, lettuce, carrots	Cucumber
Celery 	Spinach, beans, cucumber, cabbage, leek, tomato, kohlrabi	Potato, lettuce, corn 
Tomato	Beans, garlic, cabbage, kohlrabi	Peas, fennel, potato
Zucchini 	Lettuce, leek, carrots, parsley, radish, beetroot, celery, spinach, beans, onions	
Onions	Savory vegetables, strawberry, lettuce, carrots, beetroot, dill	Peas, beans, cabbage

Supportive plants and their uses

Plant	Supports	Use for
Basil 	Tomato, cucumber, cabbage	Preventing blight
Caraway	Beans	Keeping black bean aphid away
Starflower 	Cucumber, zucchini	Attracting bees
Nettle 	Fruit trees, berry bushes	Killing plant lice
Buckwheat	Celery	Increasing nutritional content of the soil
Dill	Carrots, beetroot, cabbage	Helping carrots sprout
Southernwood	cabbage	Keeping white cabbage butterflies out of the patch
Oat	beans	Keeping black bean aphid away
Indian cress 	Fruit trees	Improving immune systems of plants, keeping lice off
Chervil	lettuce	Keeping lice away
Garlic	Strawberry, roses	Killing bad bacteria and fungi in the soil

Plant	Supports	Use for
Lavender	Roses	Keeping ants away 
Horse radish	Peach, cherry 	Preventing leaf curl
Peppermint	vine	Preventing blight
Radish	leek	Preventing leafmining moth and beet-leafminer in onions
Calendula 	Potato, cabbage	Controlling nematodes
Tarragon	Tomato, cabbage, potato, strawberry	Antiviral, antifungal
Wormwood 	Blackberries, leeks 	Antibacterial
Onions	Strawberries, carrots	Controlling spider mites
Sage	cabbage 	Controlling white cabbage butterfly 
Rosemary 	Cabbage, carrots	Controlling carrot moth and white cabbage butterfly