



University of Agronomic Sciences and Veterinary Medicine of Bucharest  
Faculty of Horticulture



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## The intercropping in tomato crops. Benefits for plant health

**Autors names:** Maya Stoevska, Roxana Ciceoi,  
Viorica Lagunovschi Luchian, Milena Yordanova

Coordinator Professor Associate: **Milena  
Yordanova**



ЕВРОПЕЙСКИ СЪЮЗ  
ЕВРОПЕЙСКИ СТРУКТУРНИ И  
ИНВЕСТИЦИОННИ ФОНДОВЕ



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# A few word for intercropping

- Intercropping is involving growing two or more crops on the same field at the same time.
- This method of planting is effective on small gardens, greenhouses, organic farming and urban agriculture.





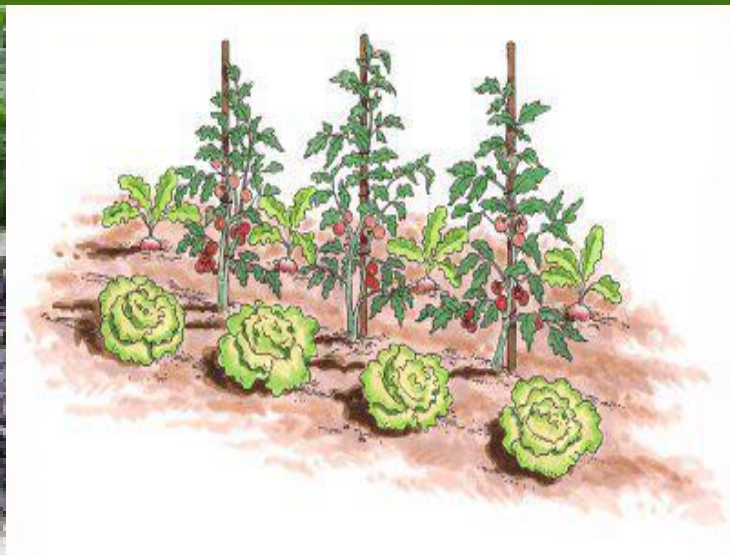
# Important principles in intercropping farming

- Usually, the width of mixed crop beds is 1.20 to 1.50 m to be easier for work.
- Maximum of five rows are most often made.
- Optimum growing distances must be observed to provide the plants with the necessary nutrient area and normal illumination.





- crops with a long vegetation period are planted in the center;
- the ends are used for planting low-growing and/or fast-growing crops (lettuce, spinach, radishes, etc.);
- it is necessary to take into account the depth of the root system;
- it can combine plants of different types and so they will extract nutrients from different depths in the soil;





# Benefits of growing tomatoes together with:



- lettuce (*Lactuca sativa*), spinach (*Spinacia oleracea*), chamomile (*Matricaria chamomilla*) and parsley (*Petroselinum crispum*), often as an early crop.

Their roots loosen the soil and thus provide good soil conditions for later growth of tomato plants.

They shade the ground as they grow, reduce evaporation and save a lot of irrigation water, especially in summer.



- Parsley (*Petroselinum crispum*) and basil (*Ocimum basilicum*) use their essential oils to keep aphids away.







- Carrots (*Daucus carota*) and parsnips (*Pastinaca sativa*) also make use of the space under the large plants, while loosening the soil with their roots and providing good drainage.



- Onions (*Allium cepa*), leeks (*Allium ampeloprasum*) and garlic (*Allium sativum*) can be planted very well with tomatoes, as these neighbors keep whiteflies away (*Bemisia sp.*)



Spanish Onion



Brown Onion



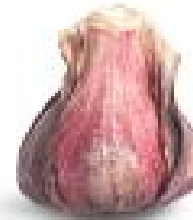
White Onion



Salad Onion



Bulb of Garlic



Local Garlic



Chives



Leek



Spring Onion



- *Calendula officinalis* release limonene, a substance that is safe for pollinators but permanently repels whiteflies (*Bemisia sp.*) and tomato moths (*Lacanobia oleracea*). Also attracts pollinators to tomatoes with its flowers.





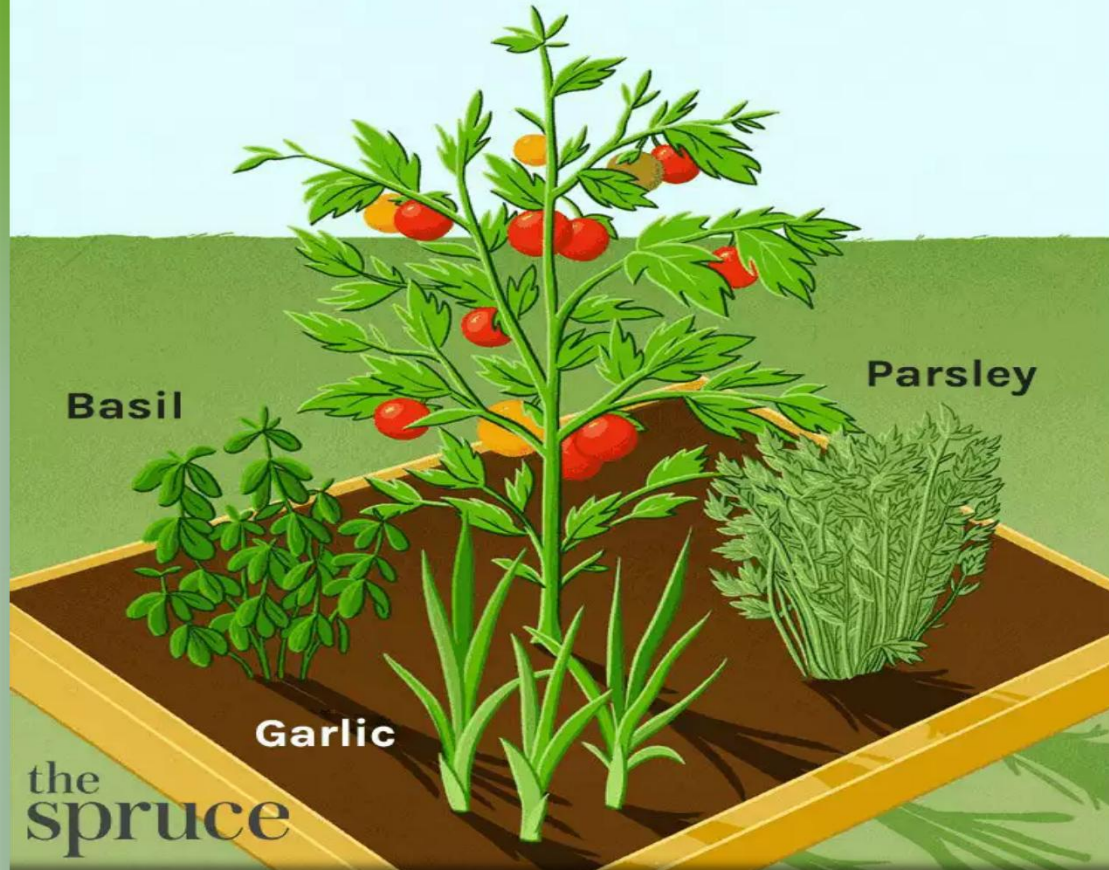
- *Tagetes patula* inhibits the development of harmful nematodes, destroys leaf fungus and repels ants, whiteflies and moths. The downside is that it attracts snails.



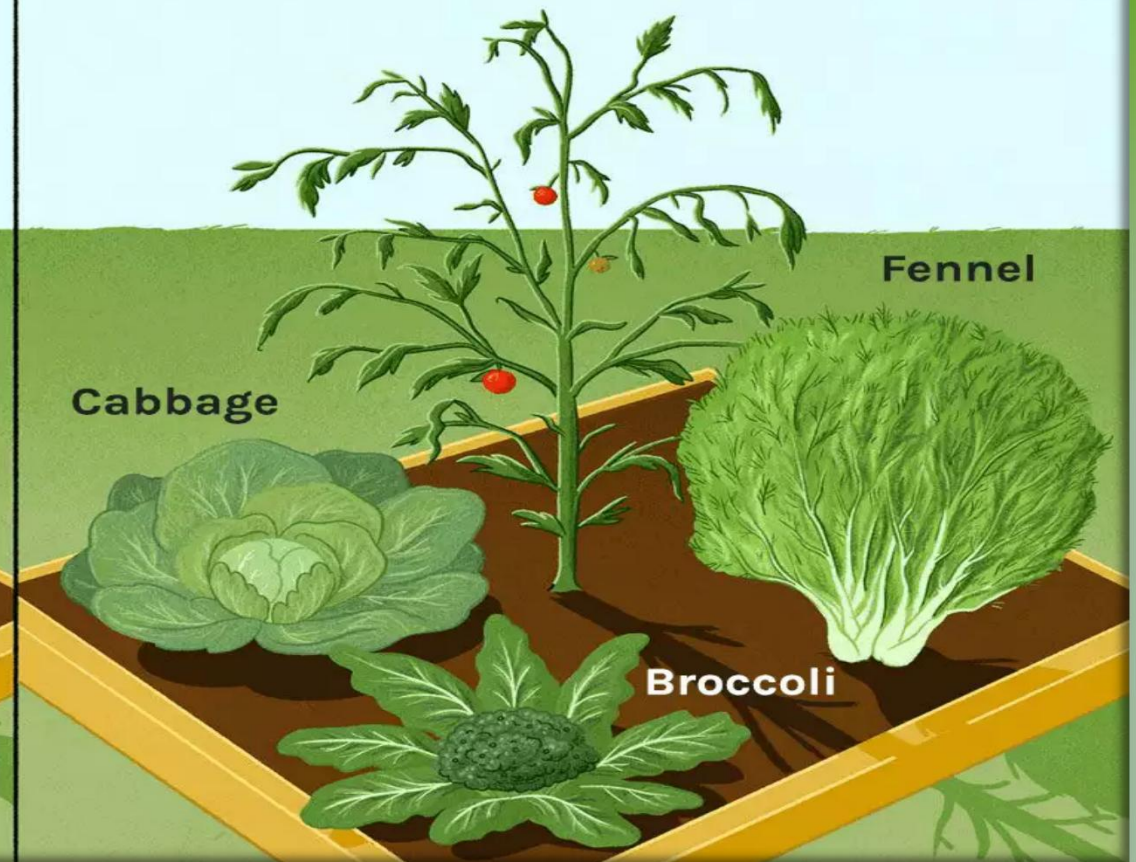


## Best and Worst Companion Plants for Tomatoes

These plants improve tomato plant growth and flavor, and repel bugs.

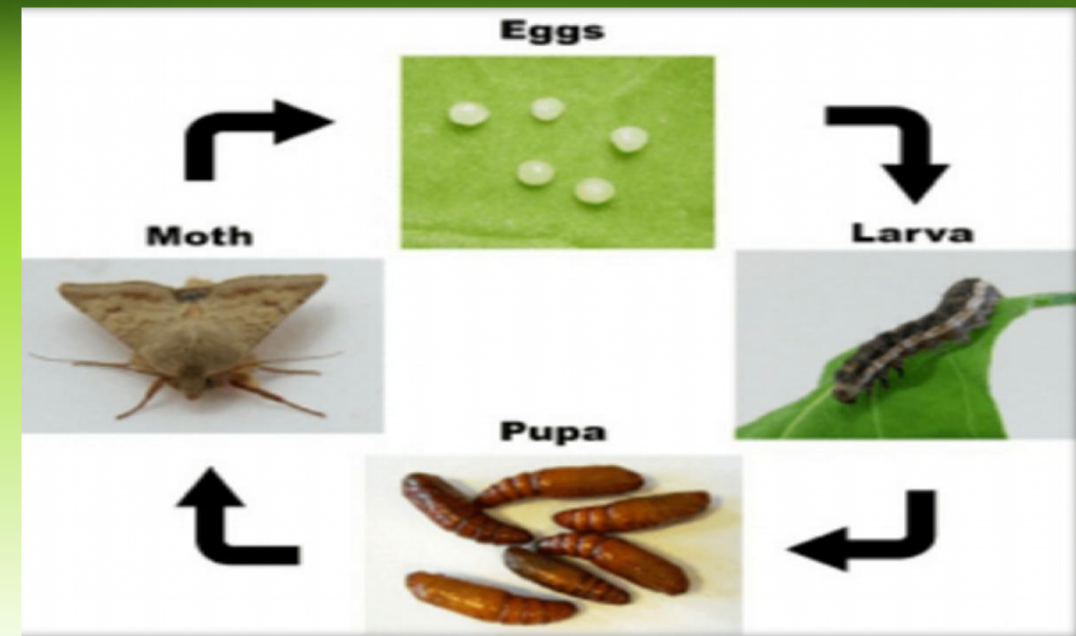
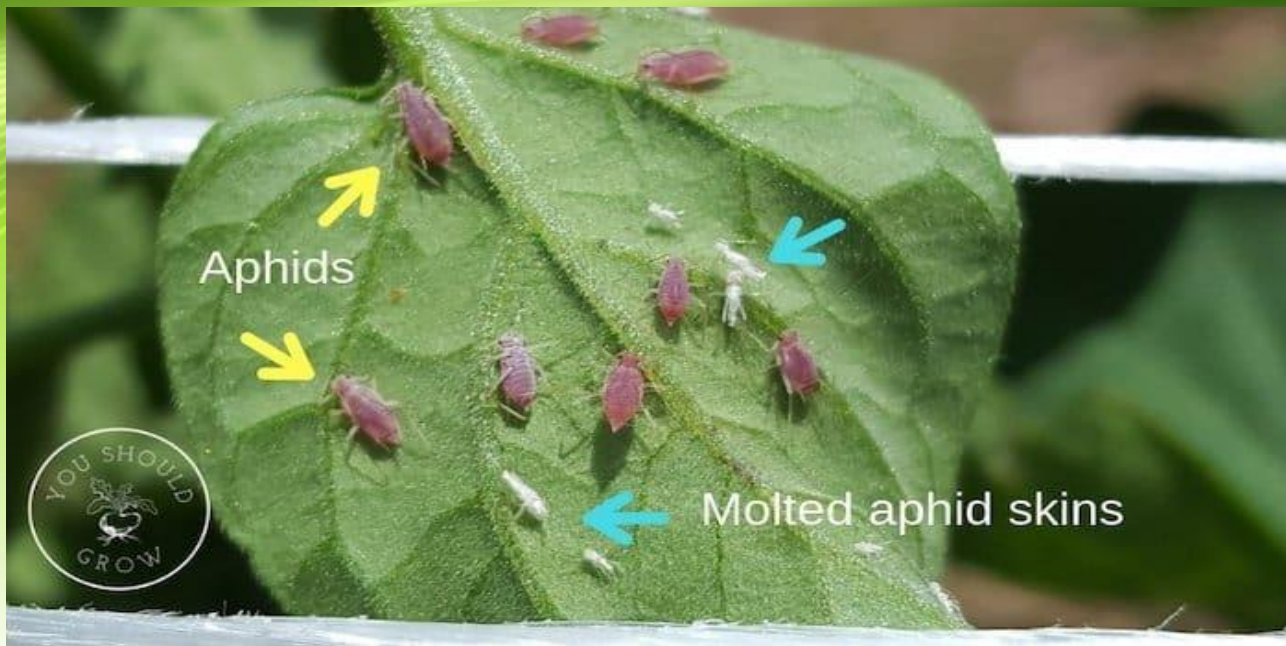


These plants stunt or inhibit tomato plant growth.



It is good to know that not all crops have good compatibility!





- From the examples given so far, we can conclude that the mixed cultivation of tomatoes with some herbs or other vegetables can completely eliminate or greatly limit the appearance of some pests like: aphids, nematodes, tomato moths and othes.





# Other benefits of intercropping :

- neighboring crops can mutually improve each other's taste (e.g. tomato with basil or mint)
- the correct combination and planting of plants creates a favorable microclimate;
- a loose structure of the soil is preserved and nutrients are absorbed more efficiently; without one-sided extract of nutrients as is the case with monoculture cultivation.
- the soil is practically constantly occupied with different type of crops, which suppresses the development of weeds.





- Intercropping is efficient and environmentally friendly method to grow and protect our food without using chemical products.
- Maybe that has to be the first question when we start growing plants -

”How can we protect plants from diseases and pests and how can we create the best conditions for their growing?“

**One possible answer is by intercropping!**







***Thank you for your attention***