

1. Intercropping and Productivity

Intercropping system is a viable strategy to improve crop productivity:

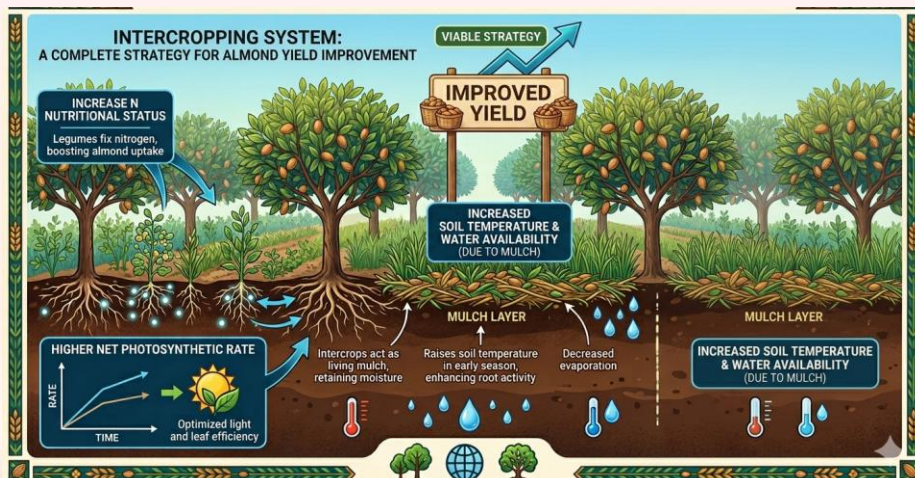
- Increase nutrient use efficiency
- Optimize spatial arrangements



2. Intercropping and Yield

Intercropping can improve crop yield by:

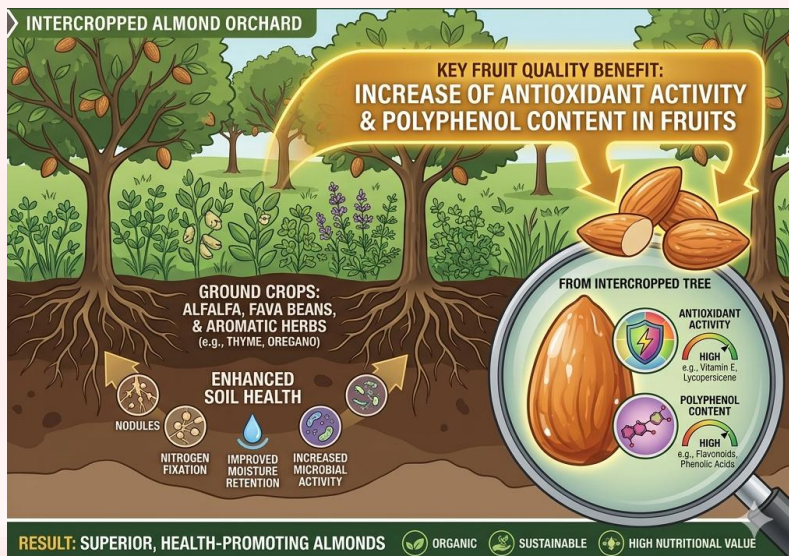
- Increasing N nutritional status and net photosynthetic rate
- Improve soil temperature and water availability (e.g. due to the mulch)



3. Intercropping and crop quality

Intercropping may improve crop quality:

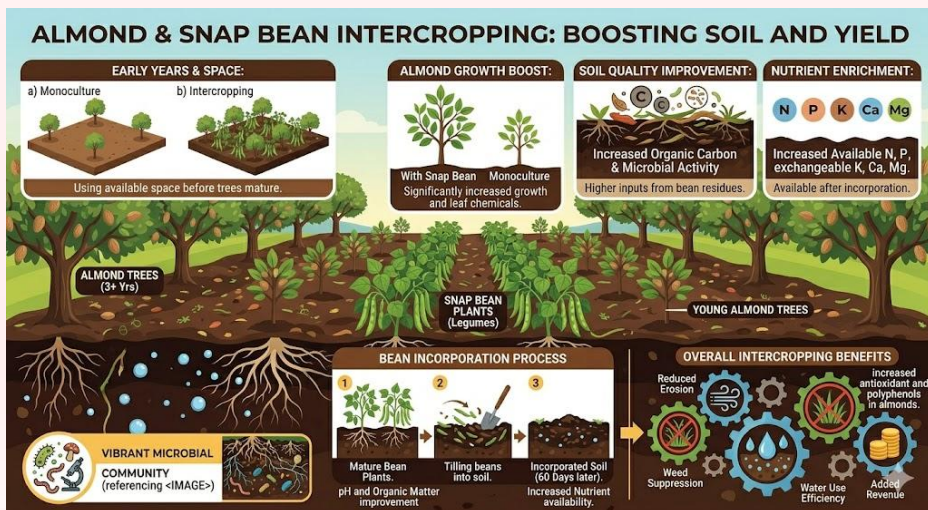
- Increase antioxidant activity and total polyphenol content of fruits



4. Intercropping and soil quality

Intercropping can improve soil quality:

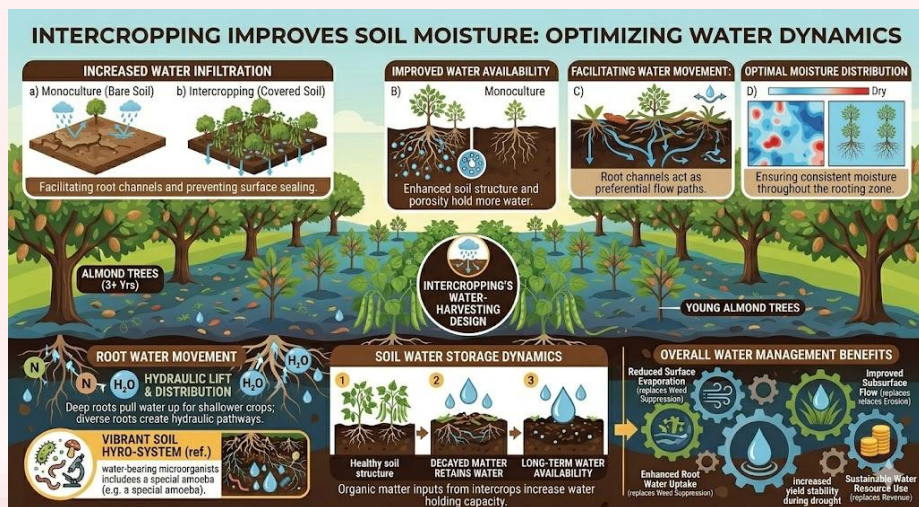
- Improve physical properties of the soil, soil organic carbon content, macro and micronutrients and microbial activity



5. Intercropping and soil moisture

Intercropping may improve soil moisture:

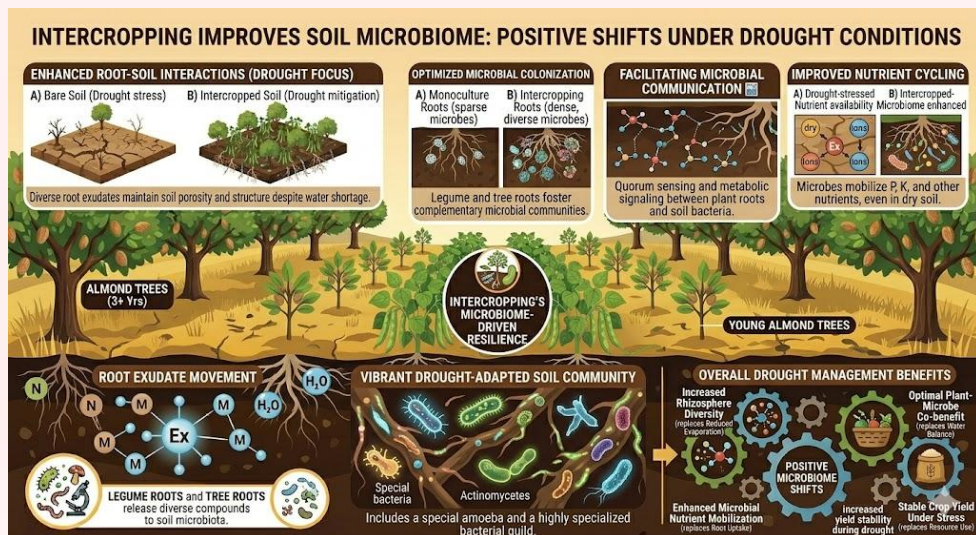
- Increase water infiltration and improving soil water availability by facilitating water movement and ensuring optimal moisture distribution in the soil



6. Intercropping and soil microbiome

Intercropping improves soil microbiome:

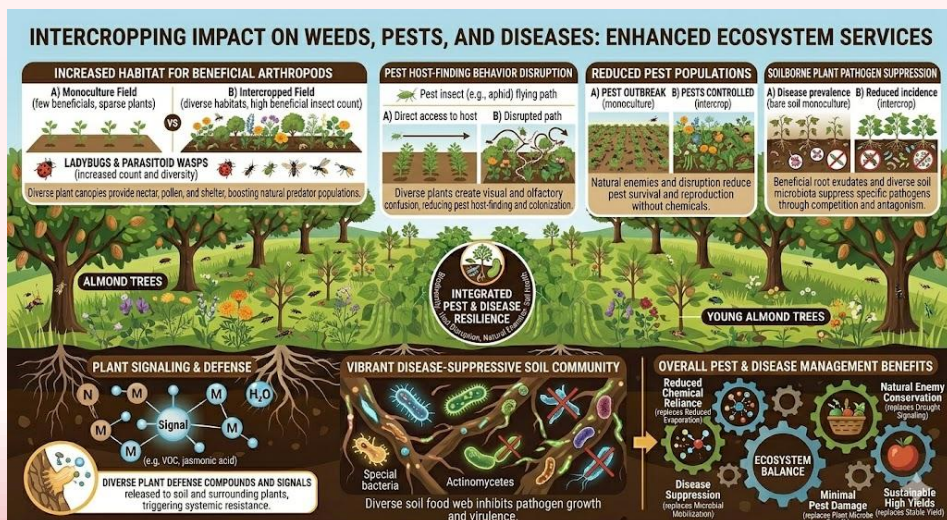
- positive shifts in root–soil–microbiota interactions under drought conditions





7. Intercropping and impact on weeds, pests and diseases

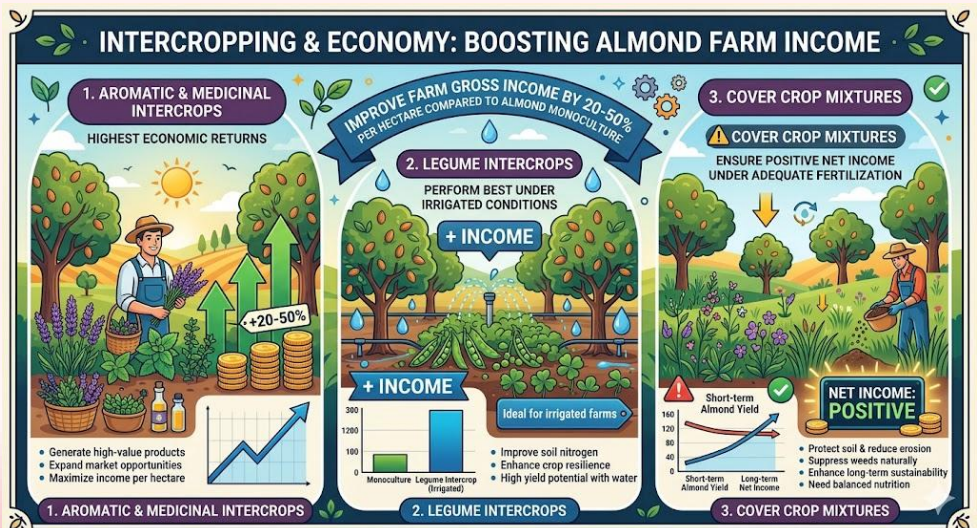
- Increase the habitat for beneficial arthropods allowing for reduced pest populations without the need for chemical inputs
- Reduce the incidence of several soilborne plant pathogen



8. Intercropping and economy

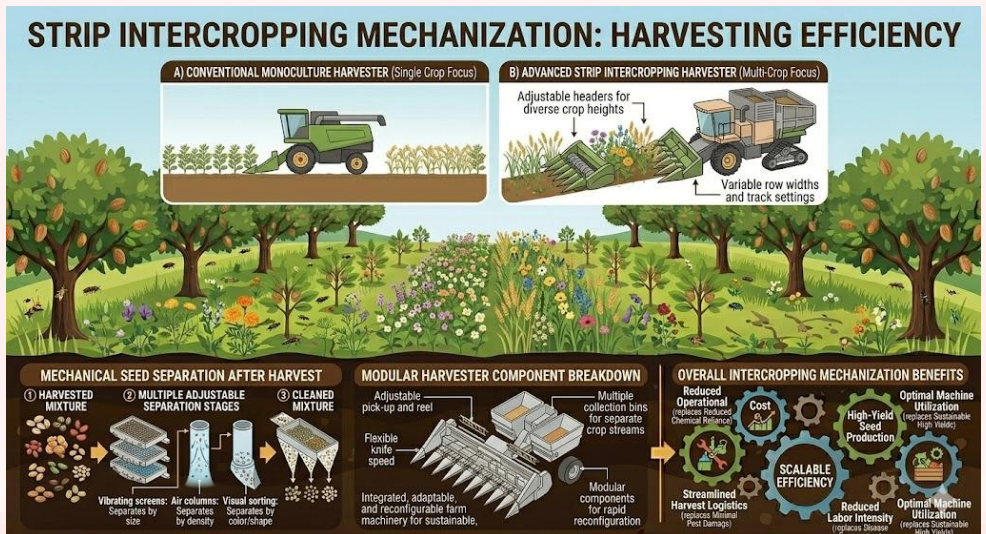
Intercropping can improve farm gross income by 20–50% per hectare:

- Aromatic and medicinal intercrops showed the highest economic returns
- Cover crop mixtures penalize short-term almond yields but ensure positive net income under adequate fertilization



9. Intercropping and mechanization

- Important adjustments to farm machinery for strip intercropping, such as the capacity to separate mixtures of different seeds
- Adapted field design to ensure that operation in main crop can still be done



10. Intercropping and needs

- Create a support research and technical assistance for help farmers:
 - Site-specific intercropping strategies;
 - Combinations with positive synergies (minimal competition, pest control, staggered harvest);
 - Establish demonstration farms and knowledge-sharing platforms to accelerate learning across regions;

