



Intercropping:

Olive Tree with Chickpea & Olive Tree with Lentil

Increasing income from your Olive grove
<https://remediationproject.com/>

Why chickpea and lentil?

Chickpea (*Cicer arietinum* L.) and lentil (*Lens culinaris*) are highly beneficial nutritional sources for human consumption. Also, serve as a highly valuable protein sources for animal feeding. They have been chosen as the intercropping with olive trees based on their unique and valuable characteristics. They exhibit an important ability to perform nitrogen fixation in the soil. This procedure improves the fertility of the soil, thereby increasing the accessibility of essential nutrients, particularly nitrogen, to the olive trees. By utilizing this essential available nitrogen, chickpea and lentil make a valuable contribution to the overall health and efficiency of the intercropping system, thereby mitigating the dependence on fertilizers and promoting the principles of sustainable agricultural practices.

Moreover, a significant attribute of chickpea and lentil are their limited requirement for water. This characteristic makes them appropriate for intercropping with trees that possess similar water economy in Mediterranean and other arid ecosystems. Moreover, they present economic benefits for agricultural producers. The inclusion of chickpea and lentil as a profitable agricultural commodity, in conjunction with olive products such as olive oil and edible olives, serves to broaden the range of revenue sources available to farmers.



Where and how to plant ?

The chickpea and lentil can be grown with olive tree in intercropping system under Mediterranean climate conditions. The inter-tree spacing should be minimum as 5 m. Because a sufficient spacing needs to maintain between the rows to allow optimum exposure to sunlight and promote adequate air circulation, creating favorable conditions for the healthy development of plants. In order to ensure the successful implementation of the intercropping system involving olive trees and chickpea and lentil, careful preparation and effective management practices are highly important. Due to this reason, careful soil preparation should be undertaken, covering essential tasks such as ploughing, harrowing, and levelling, with the aim of establishing an ideal planting setting. Late November is considered the optimal period for seed sowing in the Mediterranean regions



For more information



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Advantages

Chickpea and lentil are cultivated for their highly nutritious seeds, which find frequent use in a variety of culinary preparations, including soups, stews, salads, and hummus. The elevated protein content of chickpea and lentils, combined with their essential vitamins and minerals, makes them highly desirable component in vegetarian and vegan dietary processes. Consequently, this attribute has contributed to the growing need for plant-based protein sources.

The previous studies showed that the cultivation of chickpea and lentil with olives in an intercropping system should exhibit a positive magnitude, signifying the financial gain achieved after eliminating all of the expenses from the overall revenue. The results suggested that the implementation of an intercropping approach combining chickpea and lentil and olive crops yielded a favorable economic outcome. Hence, the integration of olive oil, consumable olives, and chickpea-lentil offers farmers a range of sources of revenue, which improves the variety of their income throughout the year. The olive oil and olive harvest typically take place within designated seasons, whereas chickpea and lentil possess the benefit of a condensed maturation period, enabling greater flexibility in terms of harvest and market timing.

The practice of intercropping olive trees with legumes improves soil health. Chickpea and lentil, as legumes capable of nitrogen fixation, contribute to soil enrichment. As well as enhances soil fertility, thereby facilitating robust growth for both chickpea-lentil and olive trees.

By doing the cultivation of chickpea-lentil and olive trees in combination, farmers are able to maximize the utilization of various resources, including sunlight, water, and nutrients.

Conclusion

In conclusion, the practice of intercropping olive trees with chickpea and lentil are valuable and a pioneer agricultural technique that offers numerous benefits. The practice not only enhances the health of soil, efficiency in resource utilization, and the diversification of income, but also encourages ecological resilience and aligns with the principles of sustainable farming. Through the strategic utilization of the inherent beneficial interactions among different crops, farmers have the ability to grow and sustain agroecosystems that exhibit strong growth and development, thereby yielding positive outcomes for both the natural environment and human society.

