EVALUATION OF ALMOND TREE' FERTILITY WHEN THE SOIL IS SUBJECTED TO DIFFERENT MAINTENANCE SYSTEMS AND DIFFERENT WATER CONDITIONS.

https://valmedalm.eu

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Introduction

In the Trás-os-Montes region, almond groves have different soil maintenance practices, soil tillage is the most common practice, especially for small almond producers. The use of cover crops has become increasingly common.

Objective

This work was carried out with the aim of assessing the fertility of the soil in the almond grove when subjected to different soil maintenance systems and with different water conditions.

Methodology

- The trials took place between 2022-2024 in two almond groves:
  - → non-irrigated and irrigated, in full production (Corujas, Portugal)
  - → young irrigated almond grove (Argozelo, Portugal)
- Each trial was divided into three treatments with three replications of five almond trees each:
  - → chickpeas
  - → short-cycle clover
  - → tilled soil.
- The soil was sampled with a probe at a depth of 20 cm in each of the trees (15 samples/treatment)

Conclusion

- the soil in all three almond groves has a silty loam texture and a pH (H2O) of 5.
- irrigated almond grove in Corujas: increase of K2O in all treatments, particularly in the tilled one.
- organic matter: higher levels in the non-irrigated chickpea treatment.
- micronutrients: increase in Fe in the irrigated clover treatment (Corujas)

Results

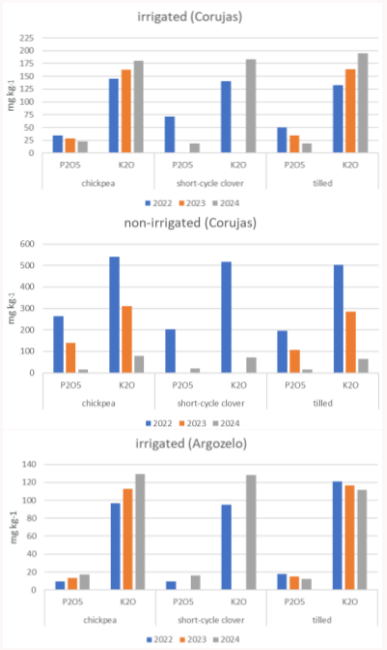

Figure 1: Evaluation of P2O5 and K2O in the three fields

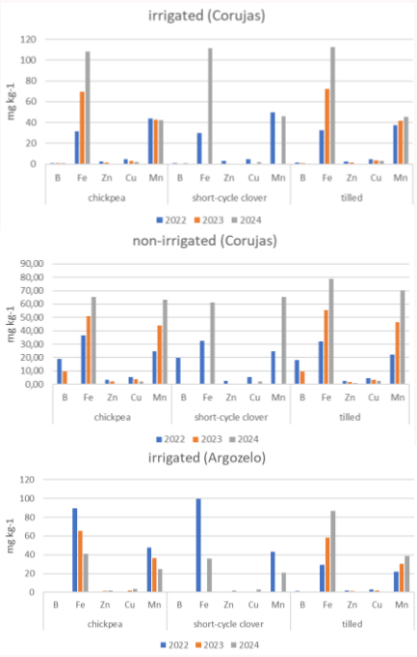

Figure 2: Evaluation of macronutrients in the three fields

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