1ST LENSES E-DIALOGUE WEBINAR:

ADOPTION OF WATER-ECOSYSTEMS-FOOD-ENERGY NEXUS IN AGRIFOOD SYSTEMS ACROSS THE MEDITERRANEAN BASIN

18 January 2023
h. 10:30 CET

This project is part of the PRIMA programme supported by the European Union.
GA n° [2041] [LENSES] [Call 2020 Section 1 Nexus IA]

Spain - Agroforestry and other intercropping experiences

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Spain - Agroforestry and other intercropping experiences

DIVERFARMING

Crop diversification and low input farming cross Europe: from practitioners' engagement and ecosystems services to increased revenues and value chain organization

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CS2: Mandarin intercropped with multiple cropping/rotations

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Regulated deficit irrigation

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AGRONOMIC BENEFITS

1. Mitigation of the effects of some pests on the crops, and a high number of pollinators in the diversification of mandarin with the multiple cropping of fava bean and vetch/barley

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AGRONOMIC BENEFITS

2. Mandarin production was not significantly reduced with deficit irrigation or diversification

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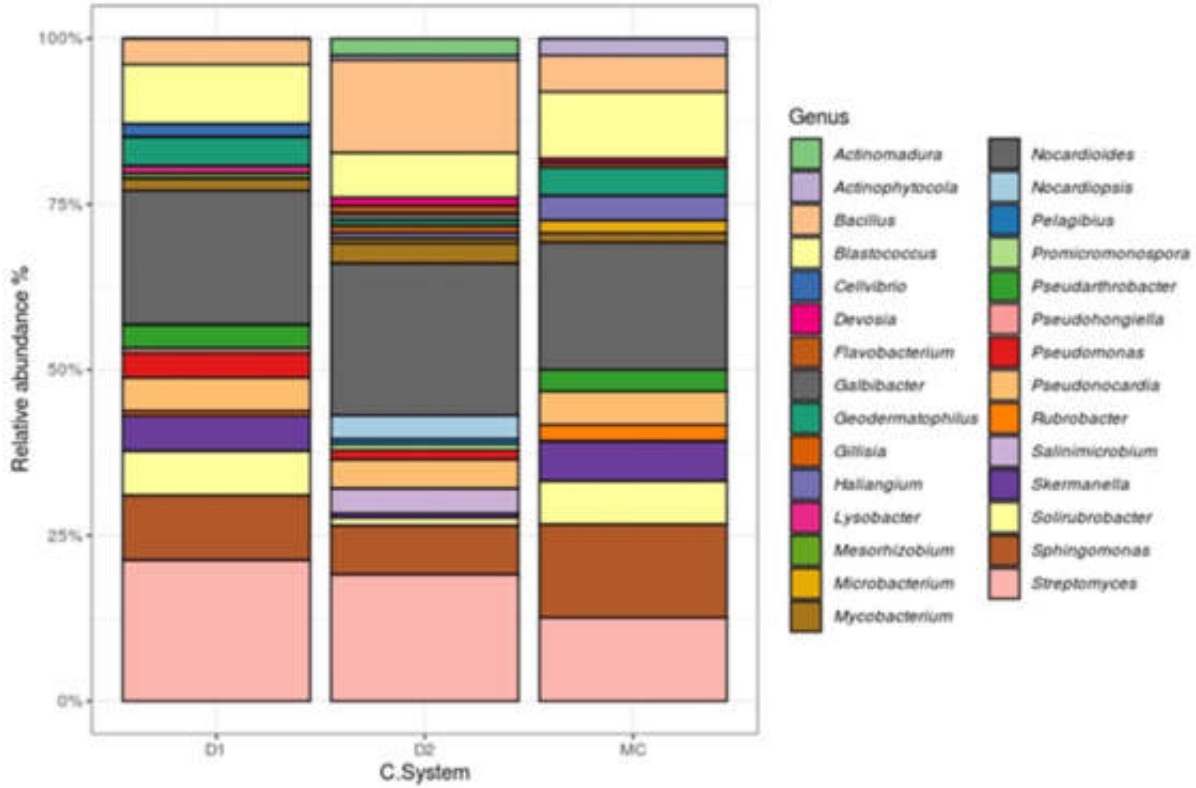
ENVIRONMENTAL BENEFITS

1. Improvement of soil biodiversity



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ENVIRONMENTAL BENEFITS

2. 60% reduction in soil erosion with fava bean/barley-vetch diversification

CONTROL

60%

FAVA BEAN

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ENVIRONMENTAL DISADVANTAGES

1. Higher CO_2 emissions in diversification, after heavy rainfall periods

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ENVIRONMENTAL DISADVANTAGES

2. High frequency of passing machinery in the alleys between mandarin tree rows, to manage horticultural crops

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CS16: Melon intercropped with cowpea

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Melon monocrop

Cowpea monocrop

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30% fertilisers supply regarding the monocrop

Row intercropping 1:1

Row intercropping 2:1

Mixed intercropping

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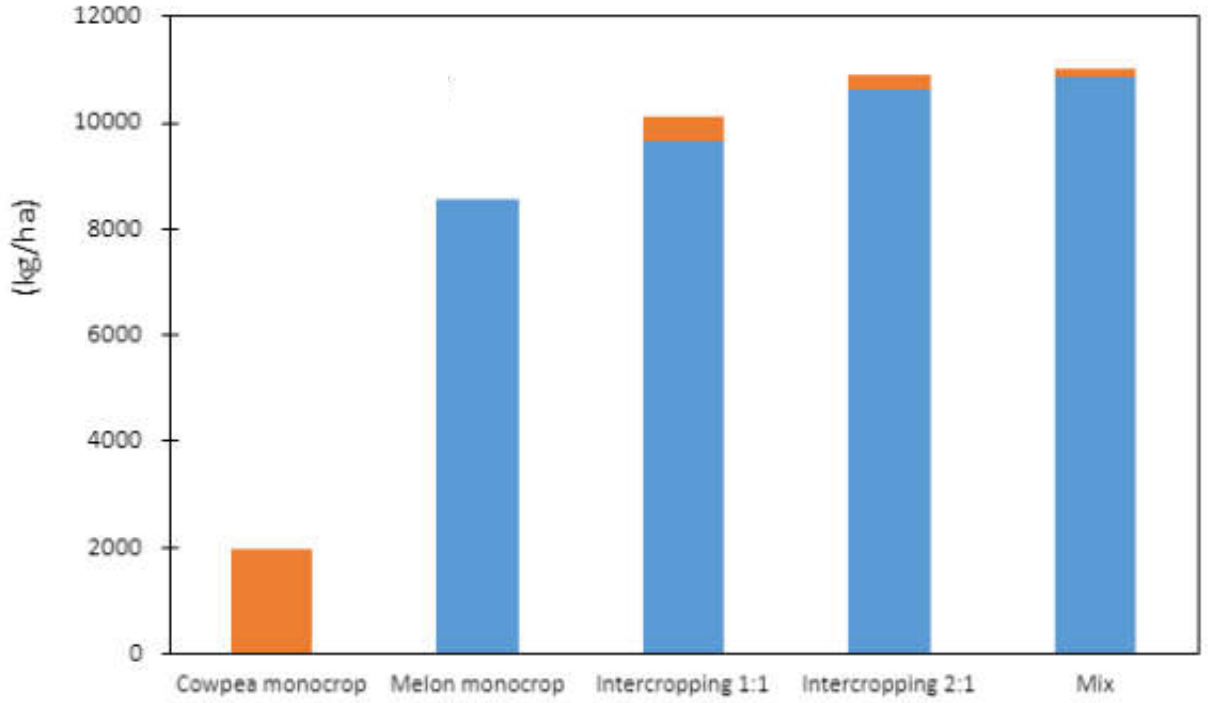
AGRONOMIC BENEFITS

1. Higher melon crop yield in intercropping systems



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AGRONOMIC BENEFITS

2. Improvement of soil fertility with the different intercropping patterns

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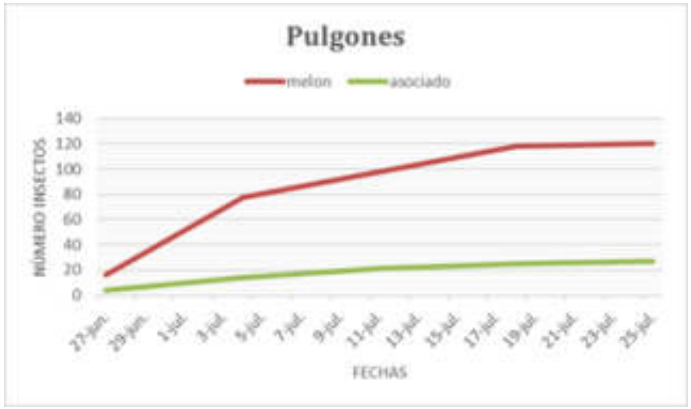
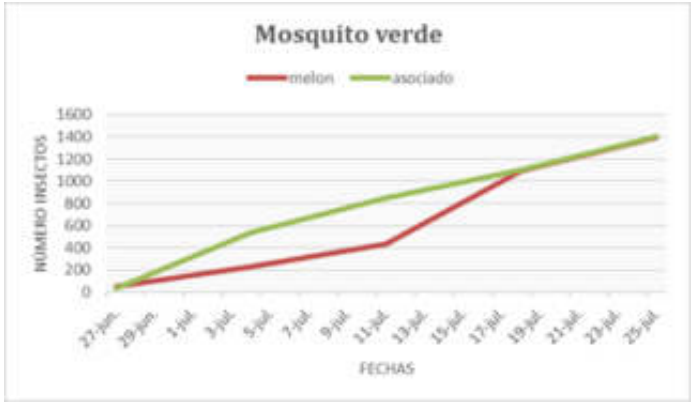
AGRONOMIC BENEFITS

3. Lower incidence of pests in intercropping systems





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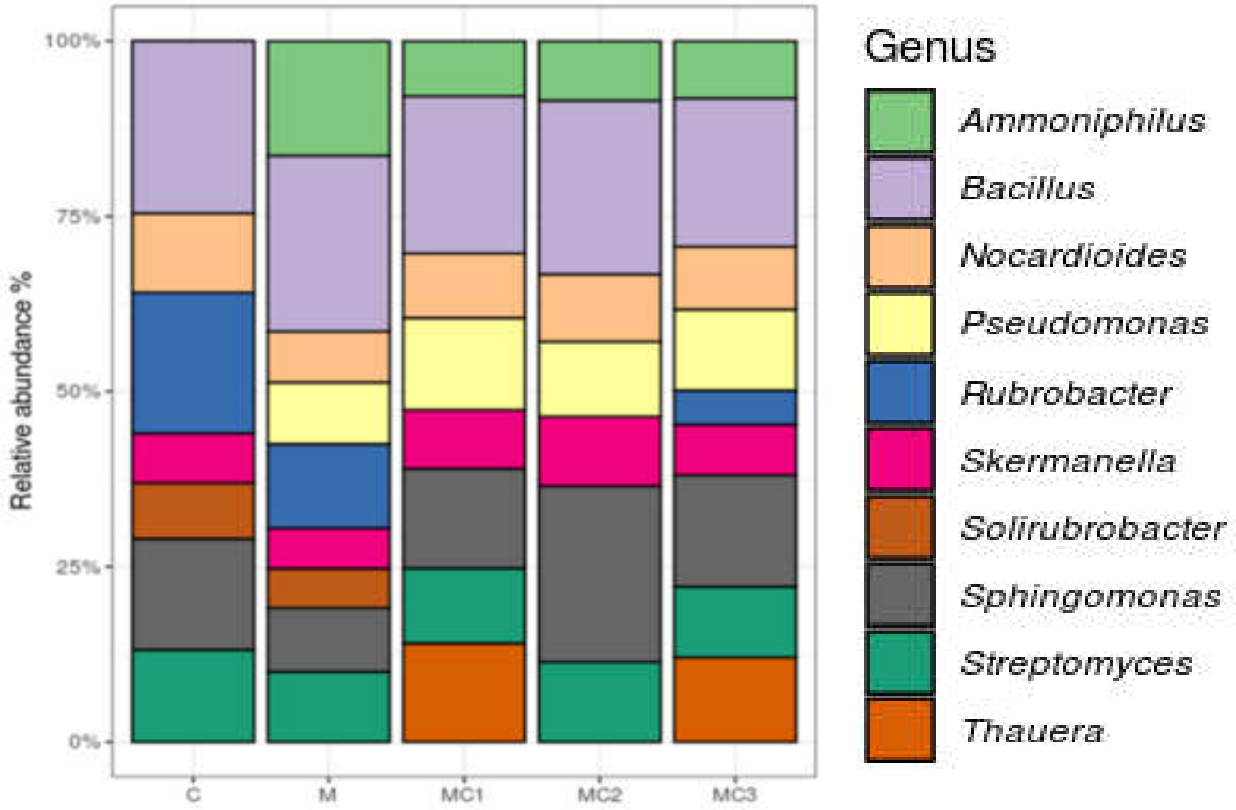
ENVIRONMENTAL BENEFITS

1. Improvement of soil biodiversity, particularly beneficial microorganisms



C = cowpea monocrop
M = melon monocrop
MC1= mixed intercropping
MC2 = row intercropping 1:1
MC3 = row intercropping 2:1

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ENVIRONMENTAL BENEFITS

2. Reduction of greenhouse gas emissions

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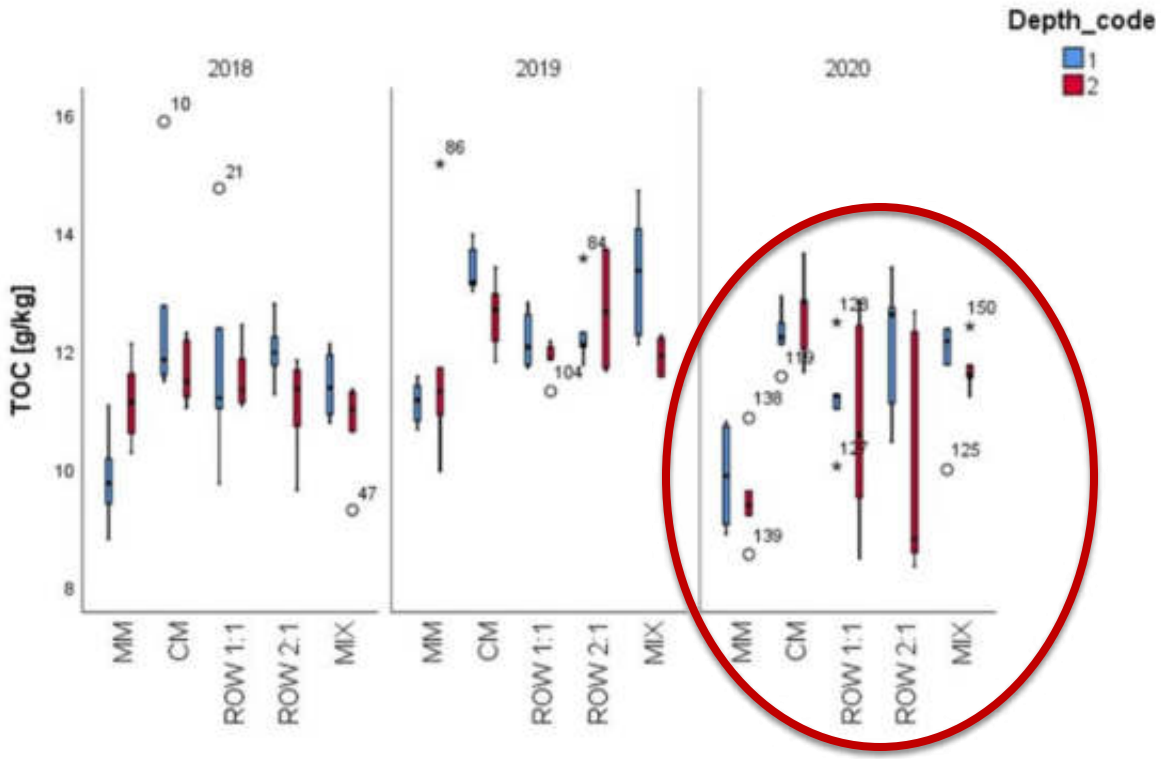
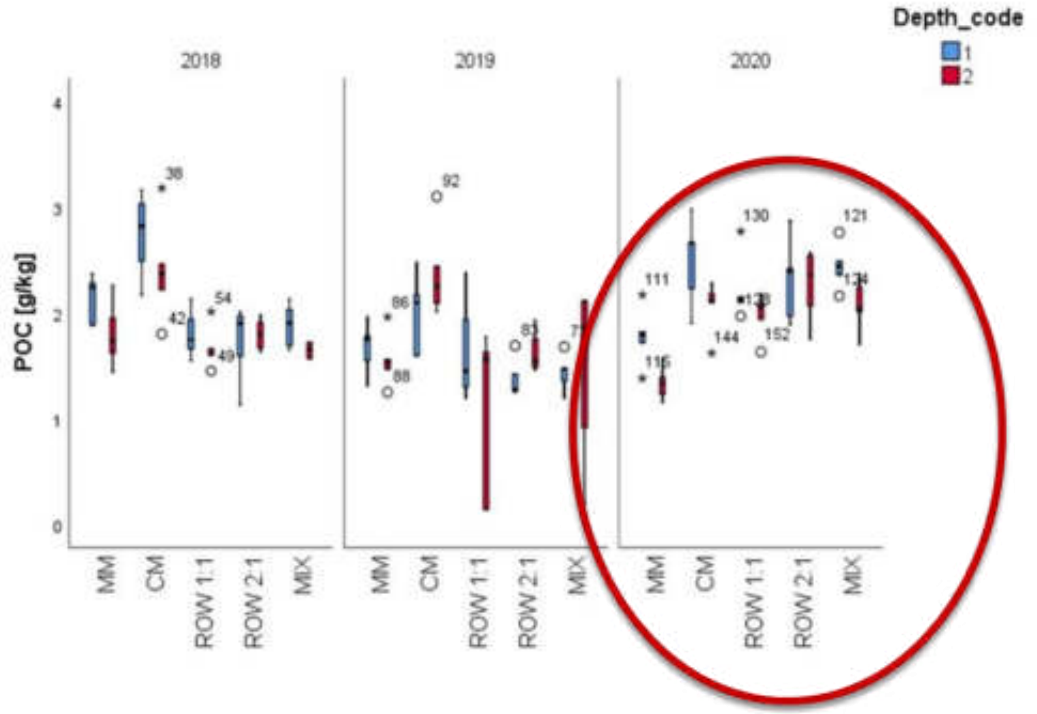
ENVIRONMENTAL BENEFITS

3. The increase in carbon sequestration





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AGRONOMIC DISADVANTAGES

1. Difficulty to optimize harvesting work

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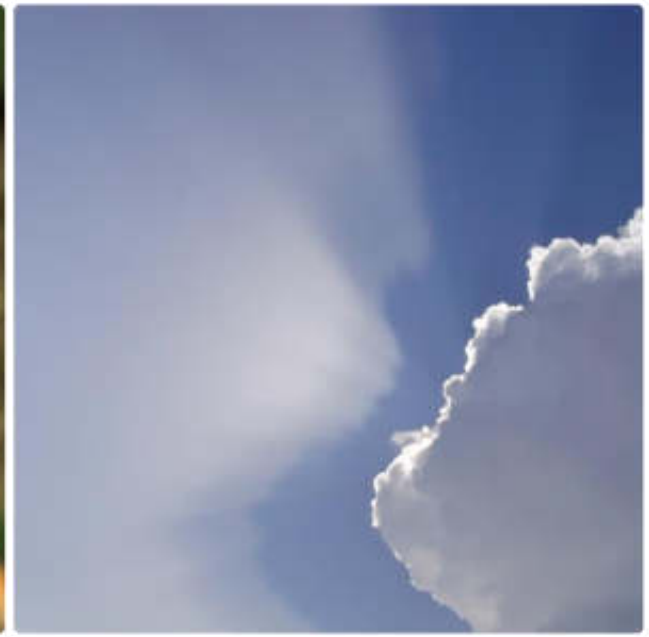
THANKS FOR YOUR ATTENTION!



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PRIMA IN THE MEDITERRANEAN AREA

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