

# From source to sink in arable farming



Oriol Comellas

# Fruit&Vegetables close to Barcelona



-Parc Agrari del Baix Llobregat

-wetlands

-Fruits and vegetables for the fresh market of Barcelona

# Les Jonces



- 1,2 ha
- Soil texture: Clay loam
- Plain
- Irrigation by flooding
- High salinity water (2,7-3,5 dS/l)

# Principles and strategies

- Farm as a whole
- Farm strategies:
  - Maximize carbon capture
  - Maximize carbon stocking/recirculation
  - to reduce oil dependent practices, enhance use of biological resources.

# Maximize C capture: Trees+shrubs+plants



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# Maximize C capture: vegetables associations



# C capture crops: *Simphytum officinale*





# C capture crops: Trees and shrubs



# C capture: weeds set point



# C stocking/recirculation: No tillage seeding



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# No tillage seeding

Concept	unit	no tillage seeding	mechanical works for seeding
Production yield	kg/ha	1634	1610
Energy yield	cal/cal	3,7	1,8
Economic yield	€/ha	9124	7710

# Enhance biological resources



Thank you!