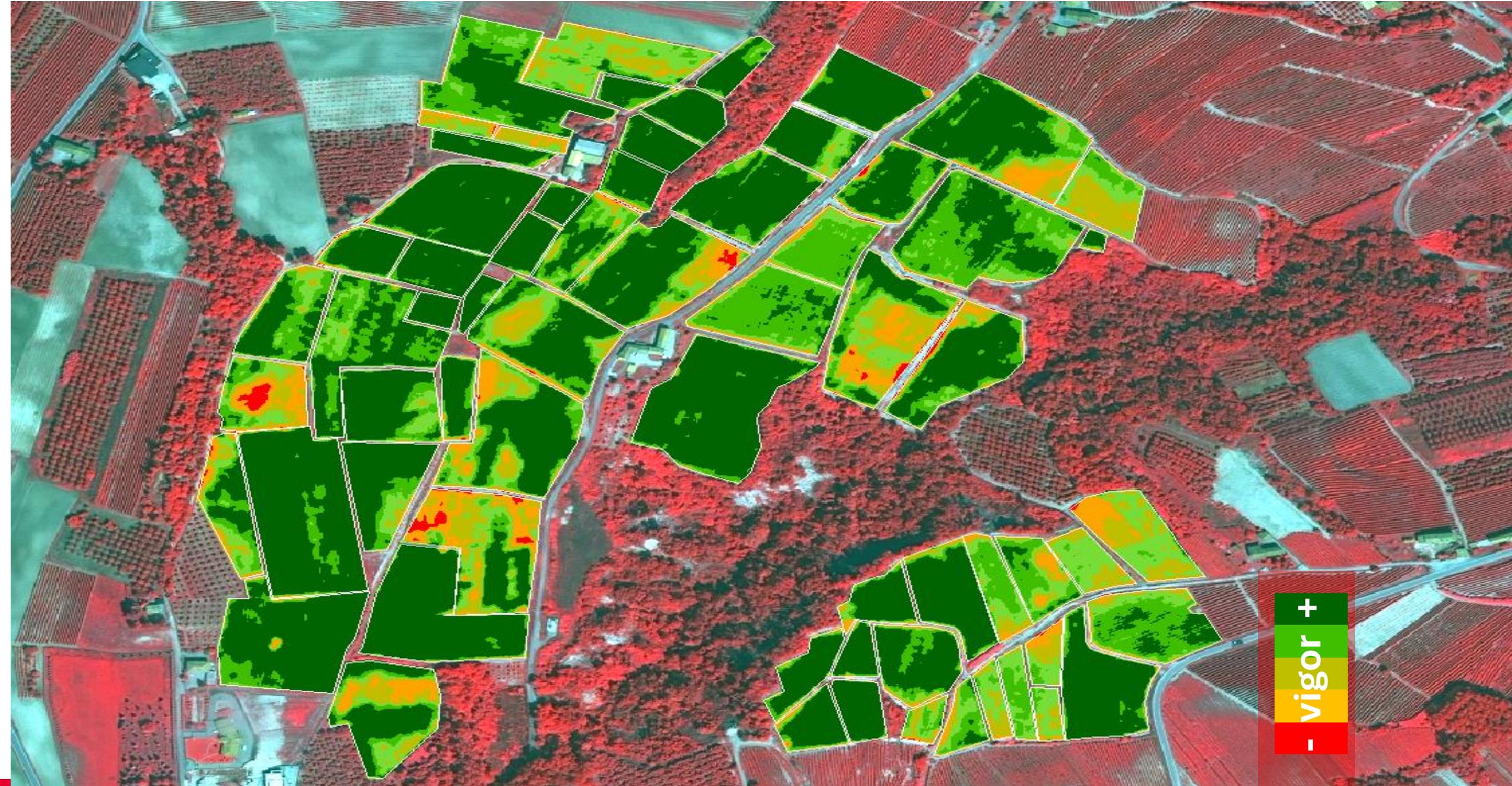


# Applicazioni operative per l'agricoltura a seguito di siccità

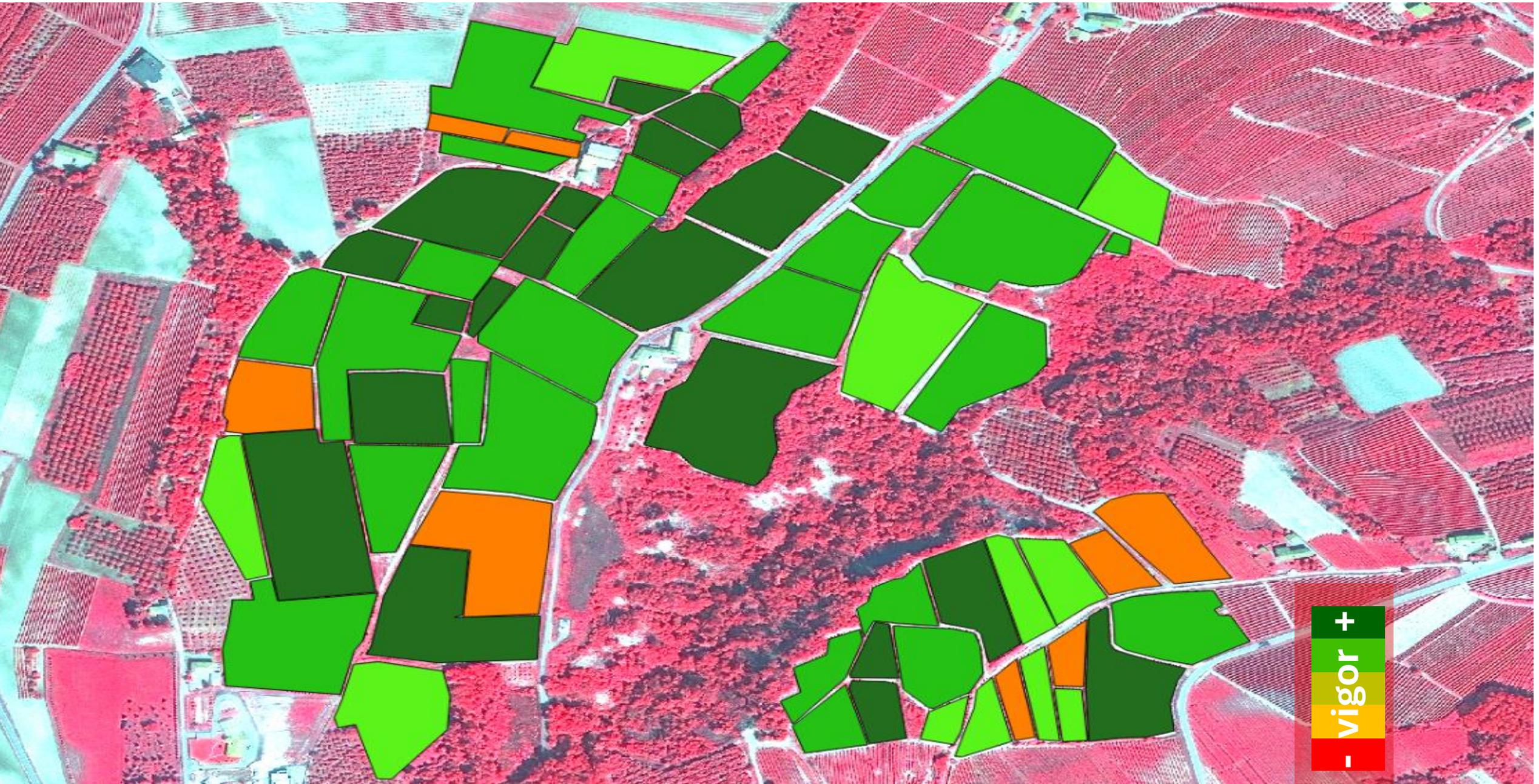
**Fabio Volpe**

Roma – 28/05/2025



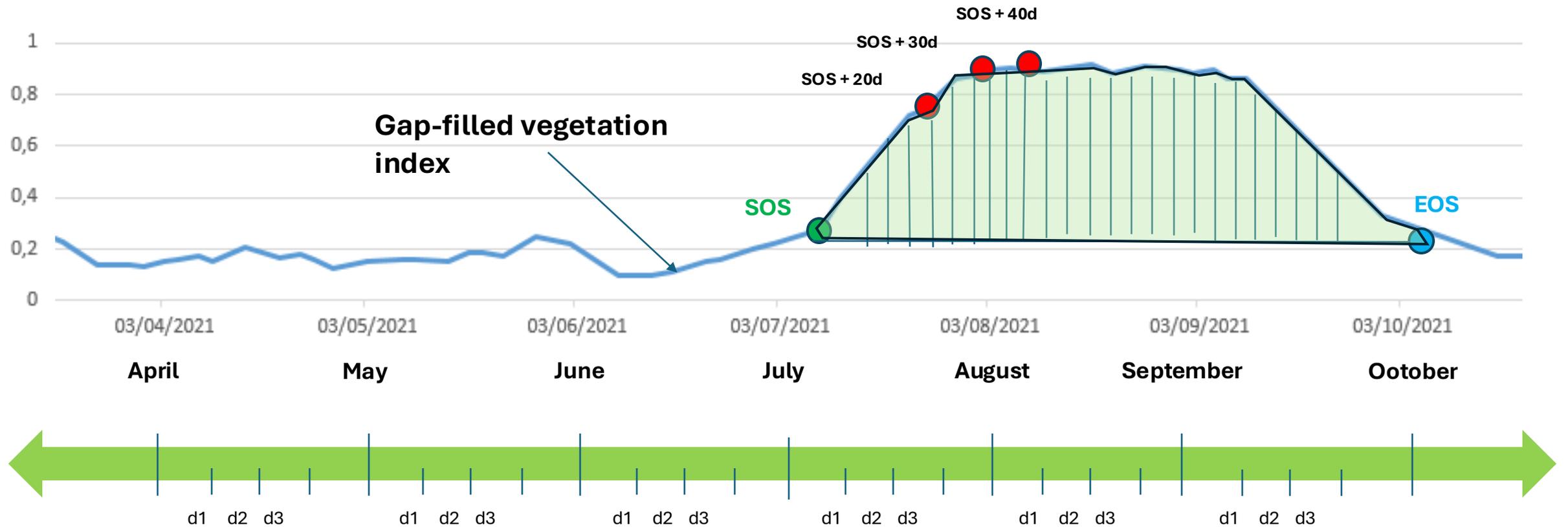


- vigor +



# Crop productivity

- Calcolato da time series di dati satellitari identificando:
  - **SOS**: Start Of Season
  - **EOS**: End Of Season



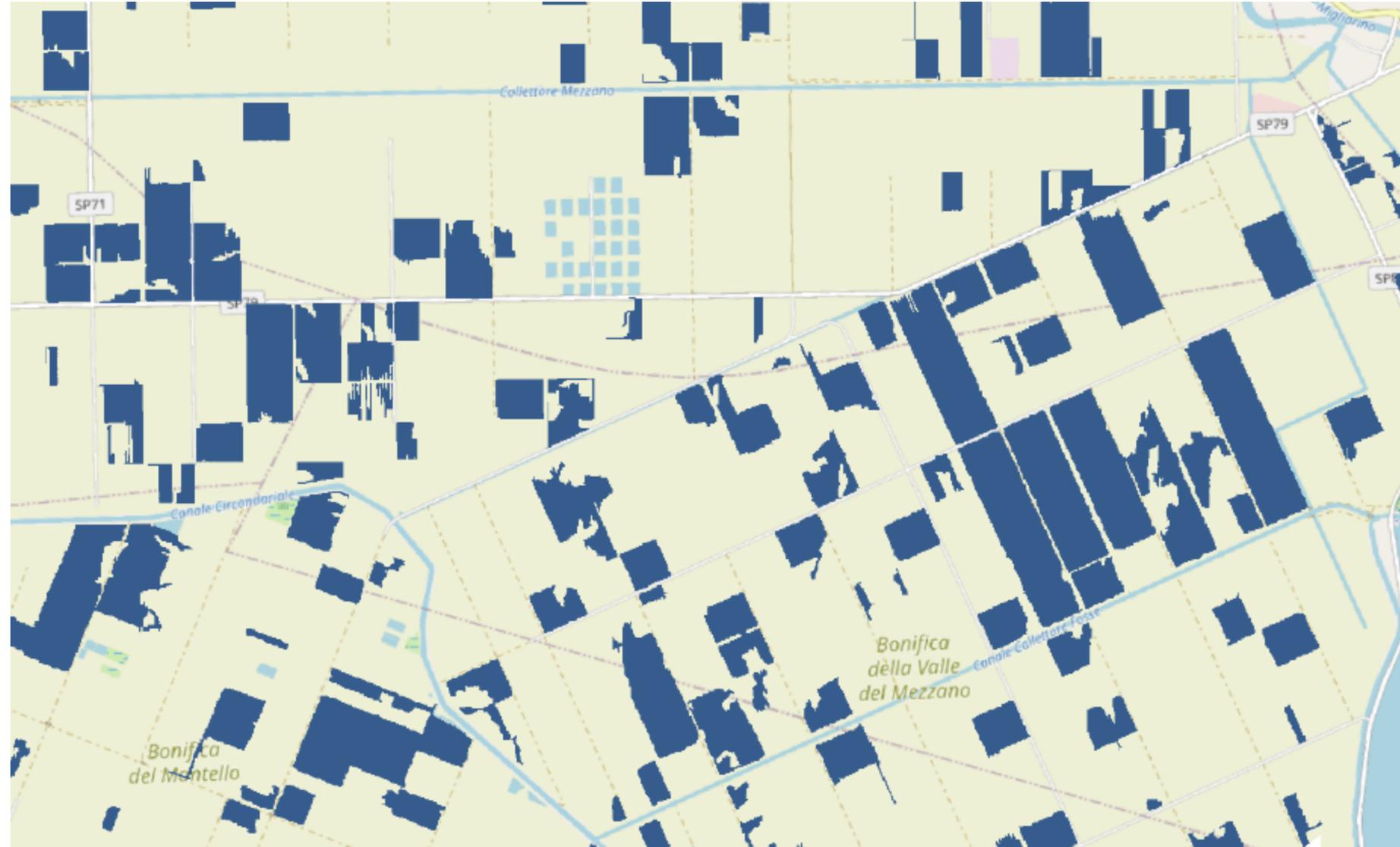
# Crop productivity

- Calcolo della data di emersione

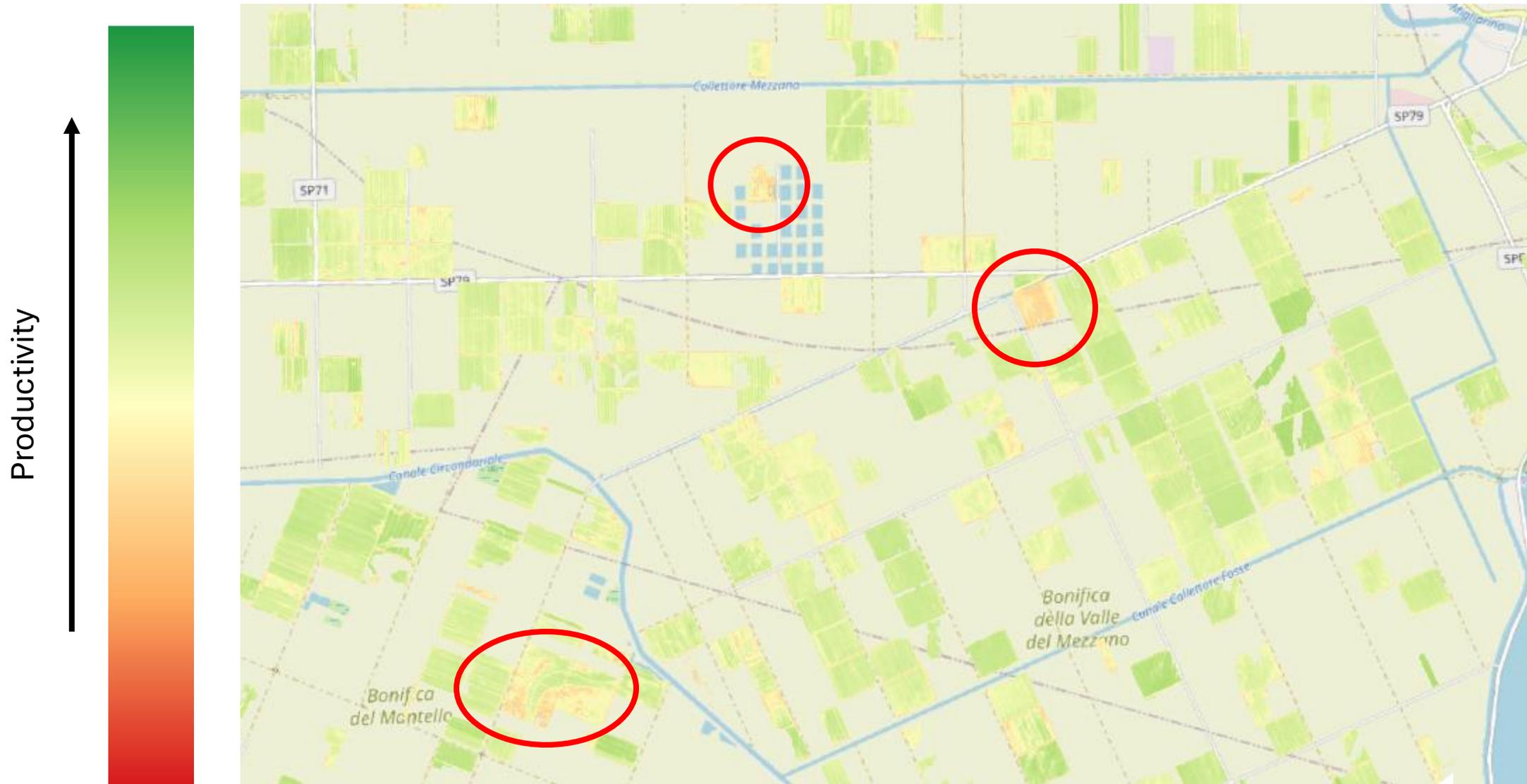


# Crop productivity

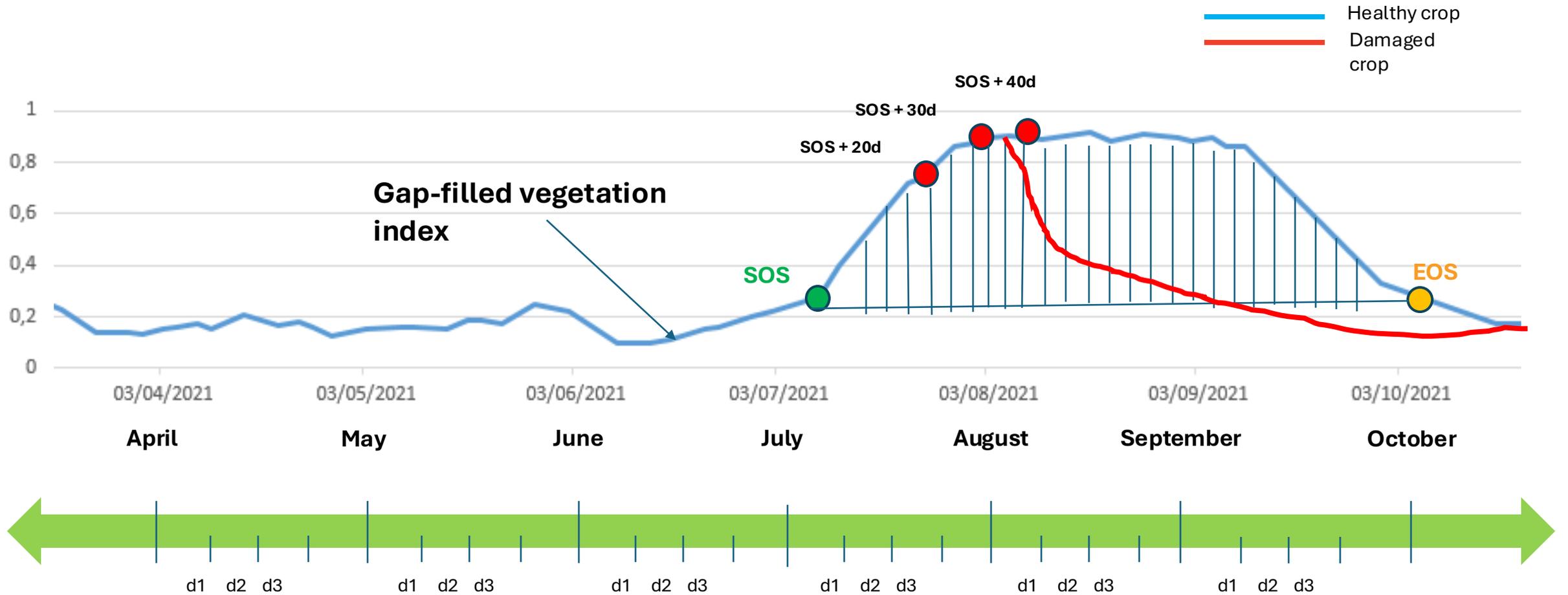
- Confronto per emersione nello stesso periodo.



# Crop productivity

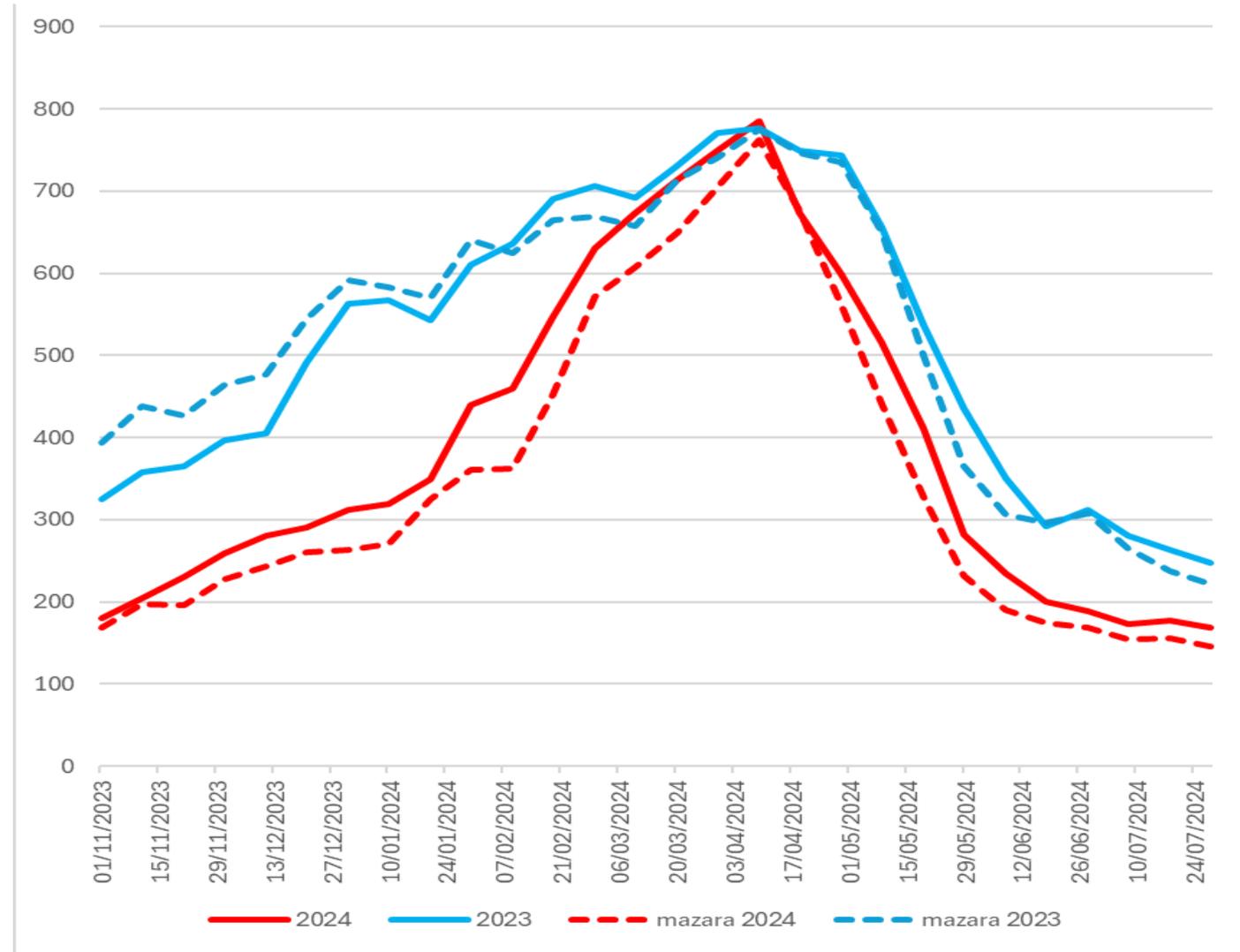


# Effetto danno coltura su crop productivity

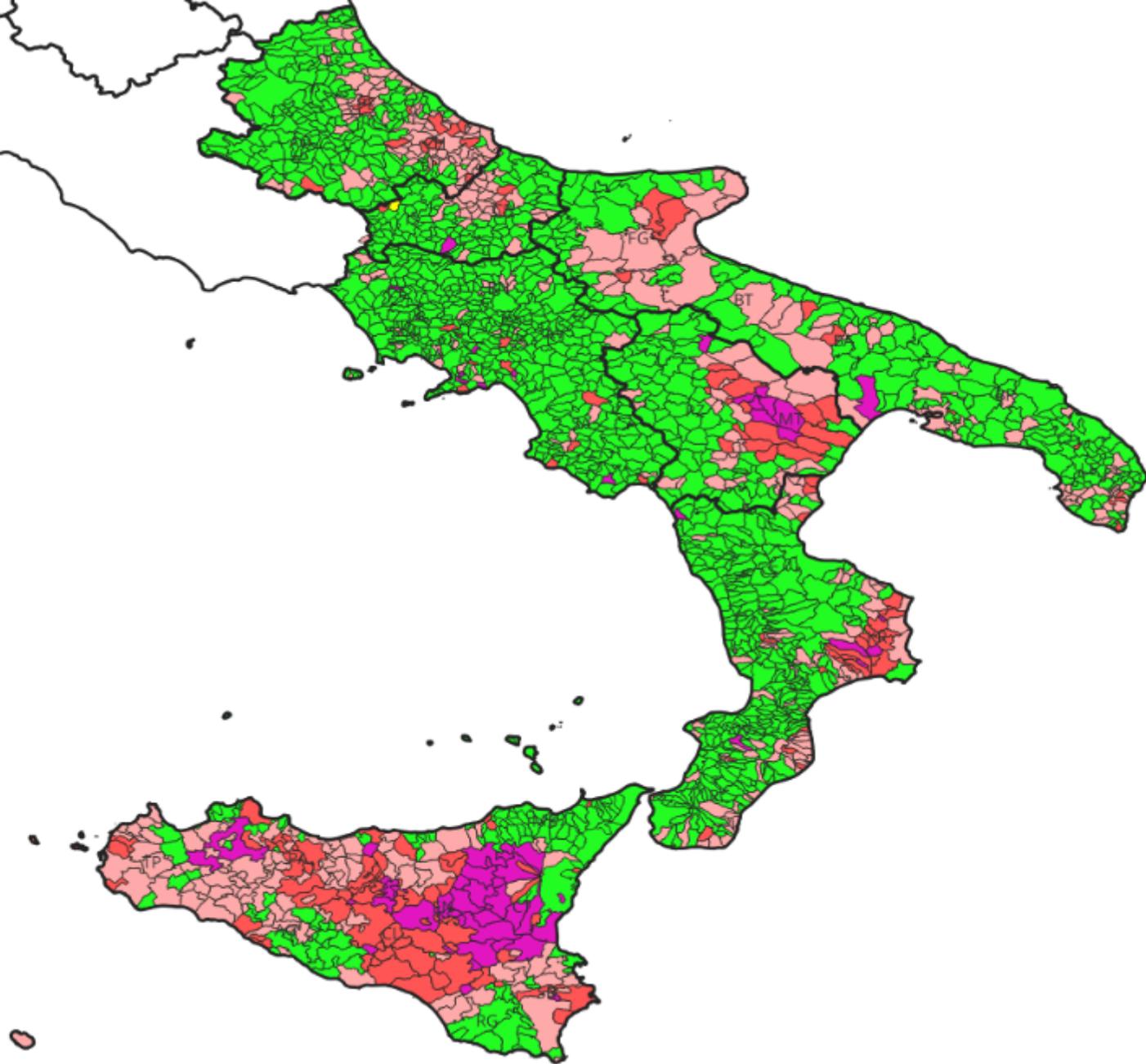
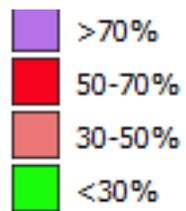
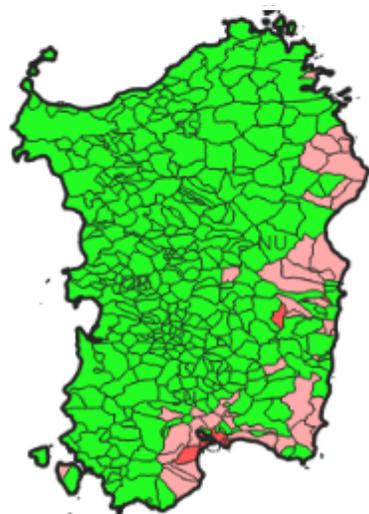


# Confronto multitemporale Crop productivity

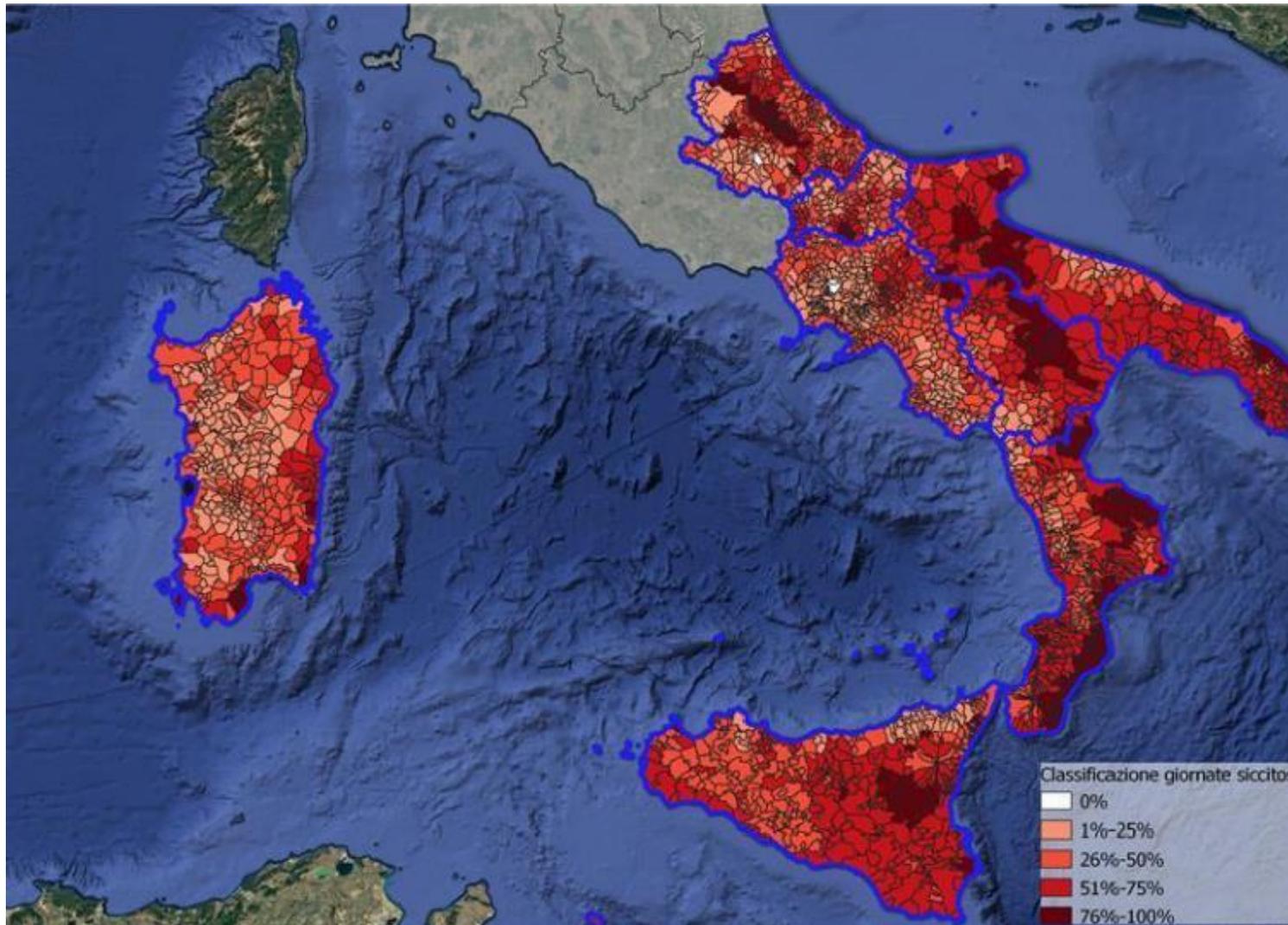
- Confronto crop productivity 2023-2024 (Provincia di Trapani e Comune di Mazara del Vallo emersione nello stesso periodo).



# Riduzione crop productivity



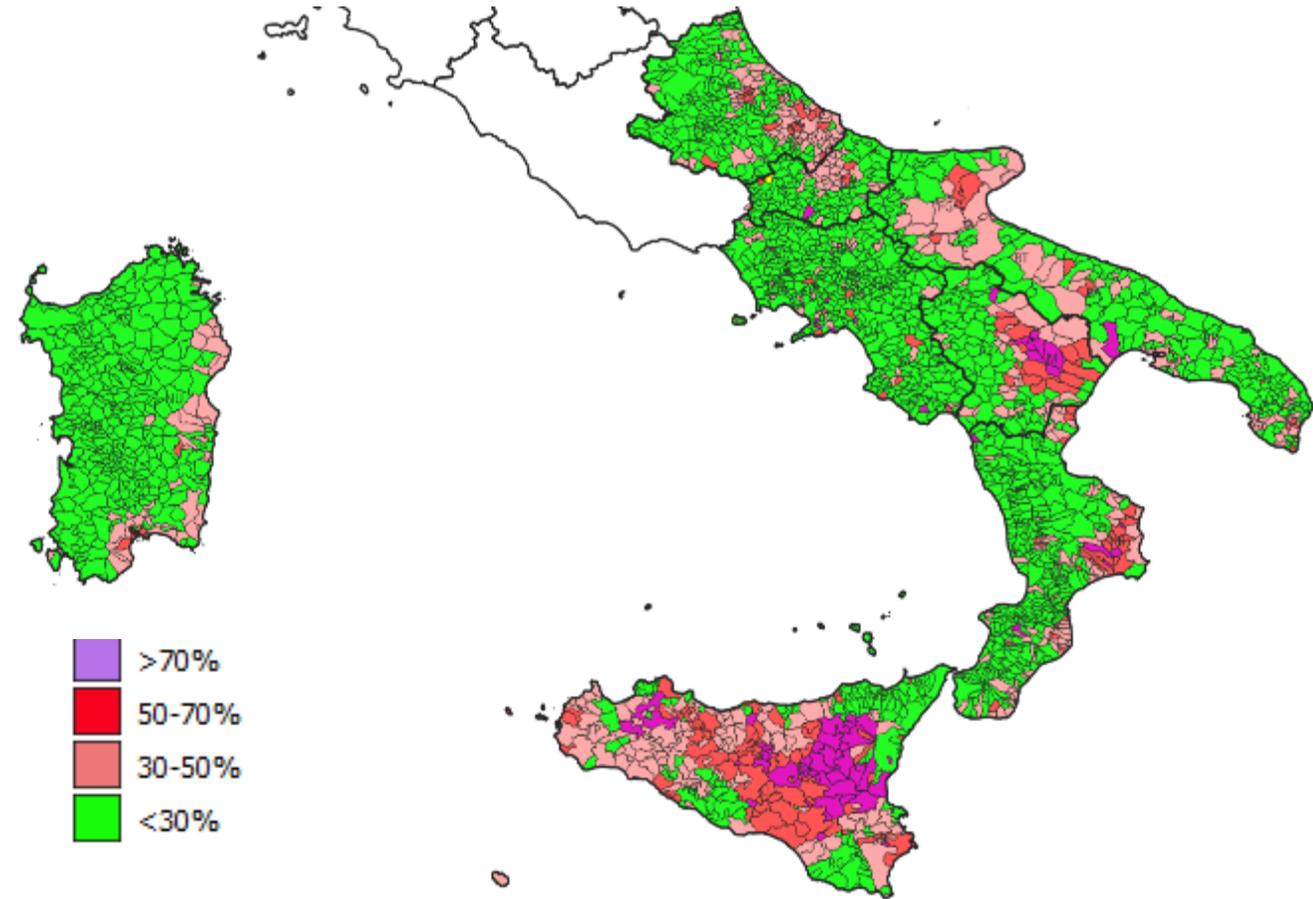
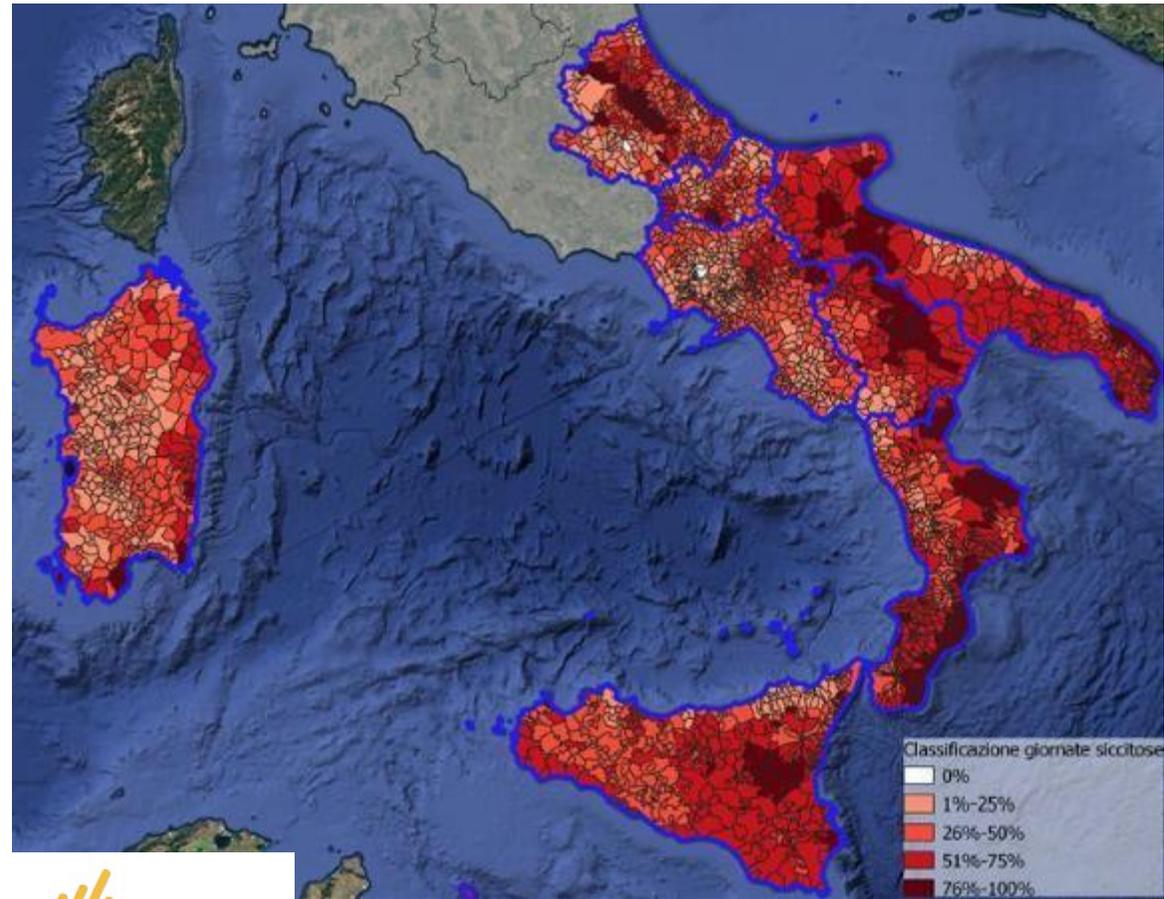
# Uso di dati meteo



- % di giorni in cui l'indice SPEI-3 MESI tra il 1/10/23 ed il 30/09/24 è stato minore di -1.5



# Confronto SPEI vs Productivity



# Takeaway messages

- Earth observation può supportare la valutazione qualitativa dell'impatto di eventi di forte siccità sulla produzione agricola per colture erbacee senza ricorso a misure a terra
- Il legame tra calo di crop productivity e calo percentuale di resa va definito per ogni singola coltura
- E' da analizzare l'applicabilità dello stesso workflow a coltivazioni di tipo arboreo

A space-themed background featuring a view of Earth from space, with a bright sun rising over the horizon and a crescent moon in the upper center.

**“We go further today, for the Earth of tomorrow”**

**Thank you for the attention!**