

05/11/2025

KIWI SOSTENIBILE

E L'ADATTAMENTO AL CLIMATE CHANGE

Marco Mastroleo, Zespri Innovation ZGS



AGENDA

Zespri: 7'

- Climate change & KVDS
- Ricerca scientifica
- Definizione di KVDS e progetti in Corso

Agreement: 7'

- Soil fertility
- ESKO

<https://www.ecomondo.com/it/dettaglio-evento/Biowaste%20XXVII%20Conferenza%20nazionale%20sul%20compostaggio%20e%20sulla%20digestione%20anaerobica%20Sessione%20Tecnica?eventId=3055396>

UNA NATURA «VERY ANGRY»

«SCIENTIFIC AMERICAN» NEWSLETTER, 15/02/2024

UN FUTURO INCERTO

La coltivazione del kiwi sarà sempre più difficile a causa di:

- estati più secche
- eventi estremi (tifoni o cicloni)
- piogge concentrate in brevi periodi

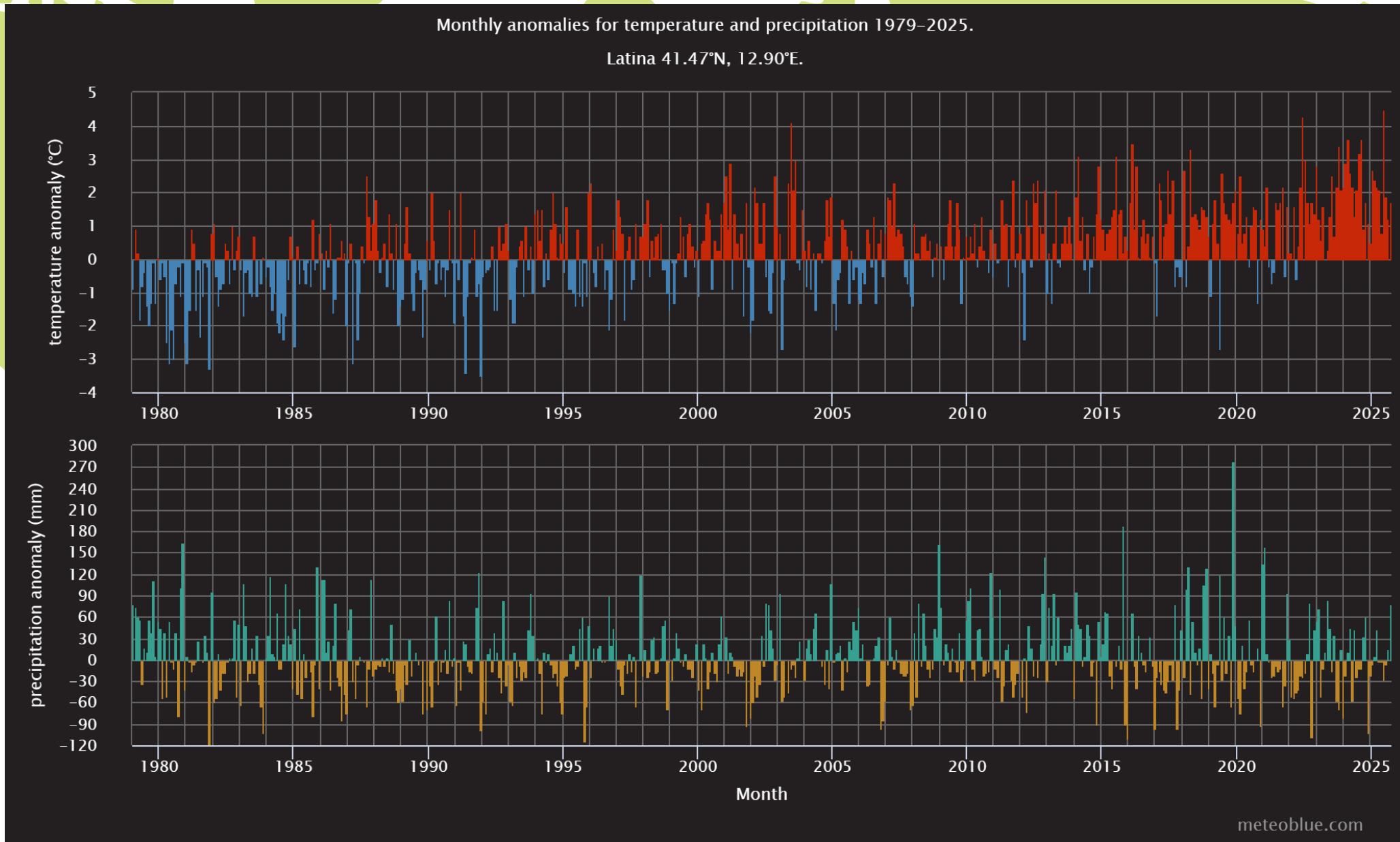


QUOTE OF THE DAY

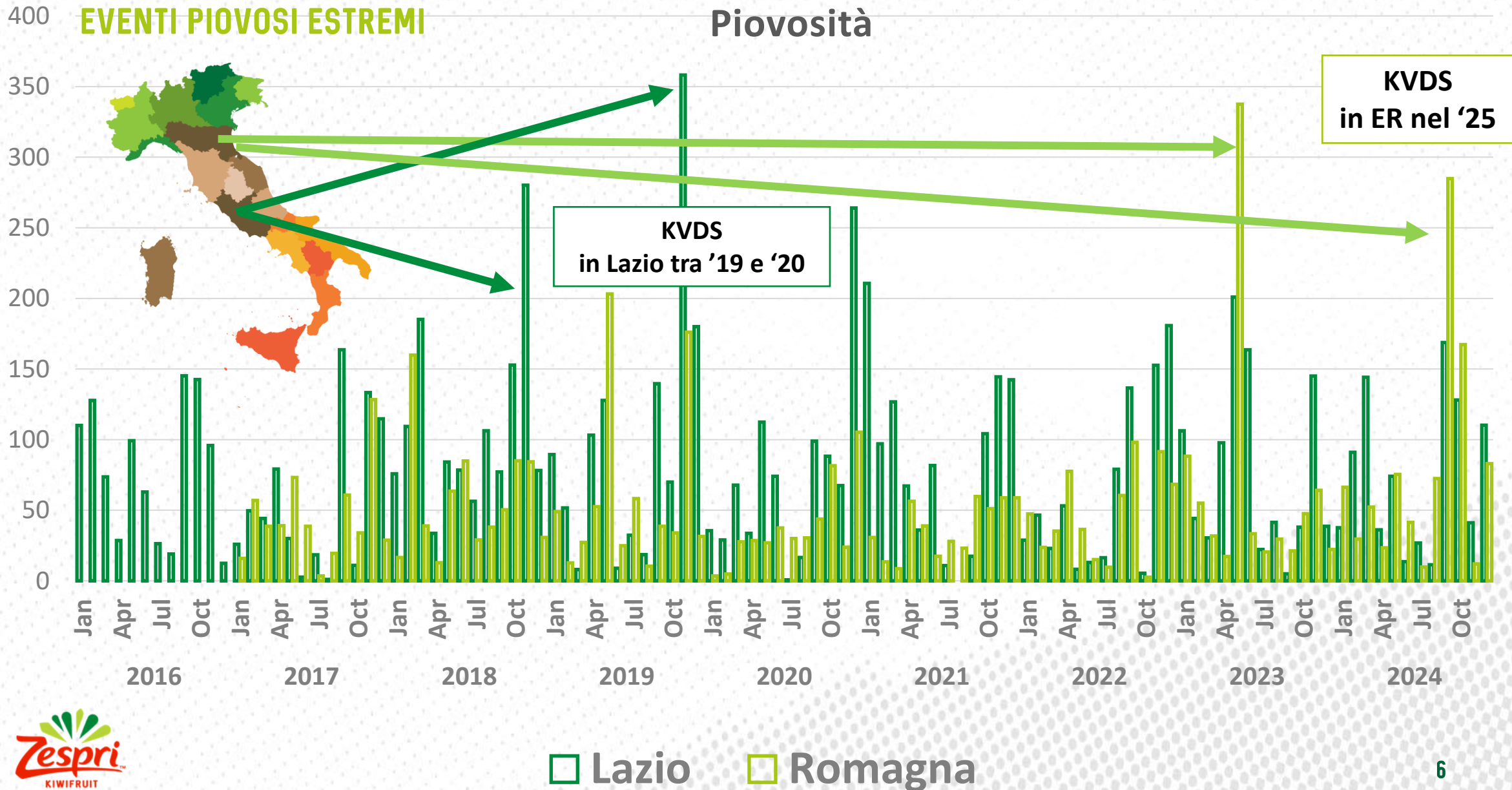
“When nature starts to be a bit destabilized, it can get very angry.”

Global warming is making the local weather changes even more violent, says glaciologist Heïdi Sevestre, who joined a film crew shooting a documentary with climber Alex Honnold in remote parts of East Greenland. “The bashing you get when you go there!” ([Heatmap | 13 min read](#))

CLIMATE CHANGE - LATINA



CLIMATE CHANGE



UN ESEMPIO DELL'IMPATTO DEL CAMBIAMENTO CLIMATICO

KVDS > MORIA



APPROCCIO CLASSICO



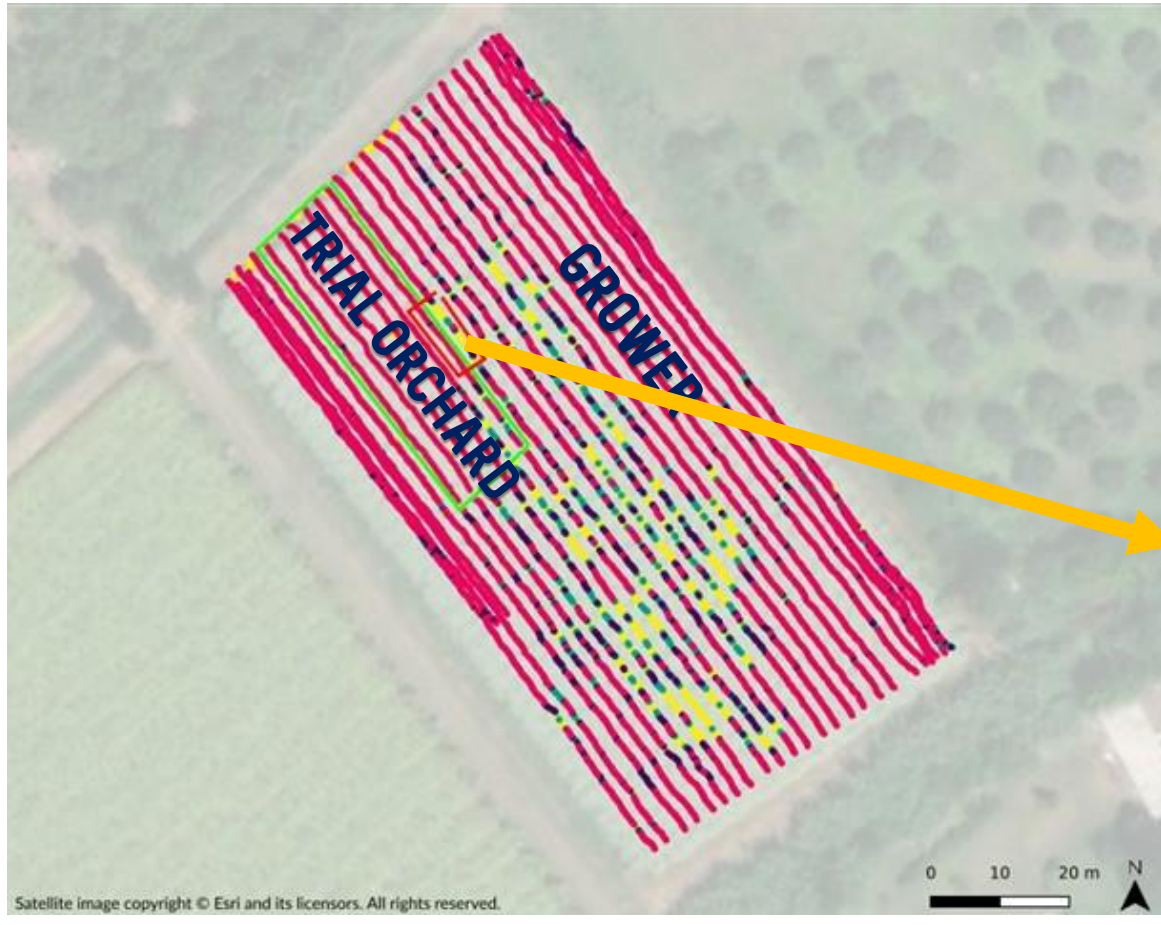
APPROCCIO MULTIDISCIPLINARE



IL RUOLO CENTRALE DELL'IRRIGAZIONE



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DELLA BASILICATA

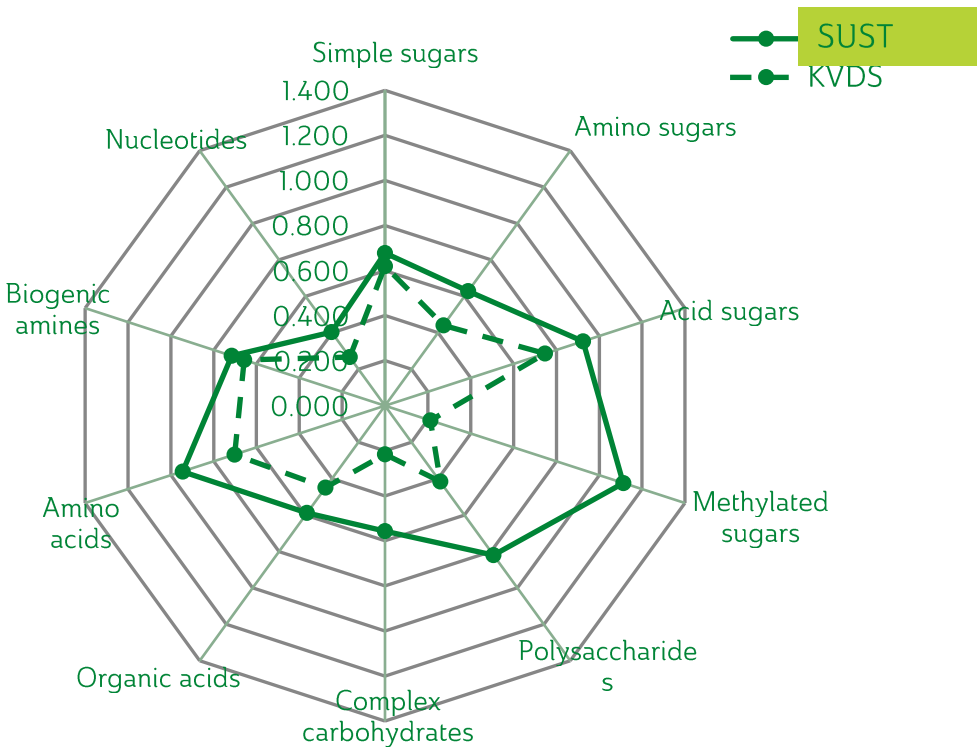


BIODIVERSITÀ

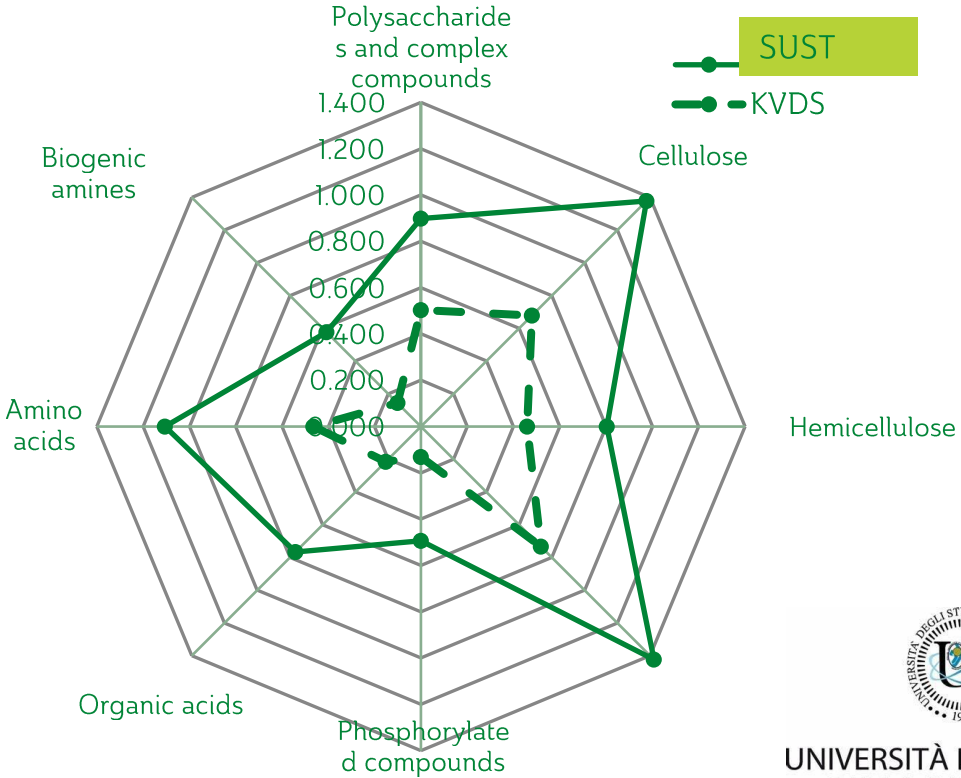
Microbial metabolic activity

Metodo Biolog® EcoPlates™ Sofo-Palese, Applied Science. 96 pozzetti analizzati spettrofotometricamente

Total fungi



Total bacteria



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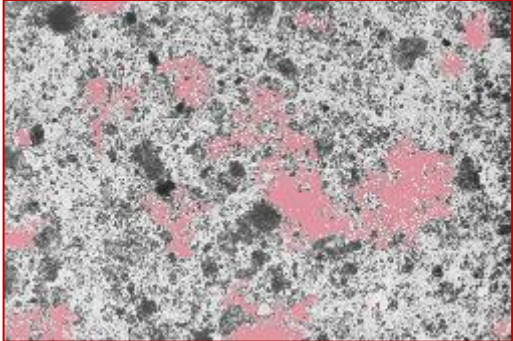
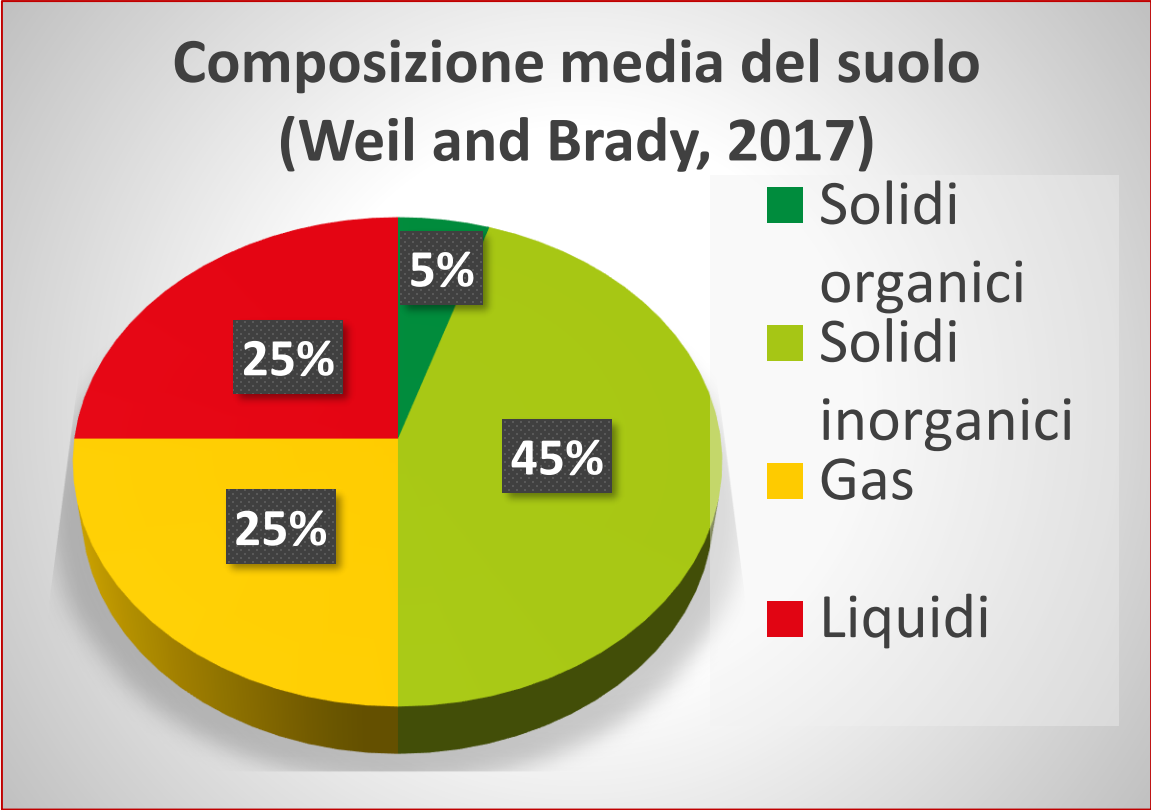
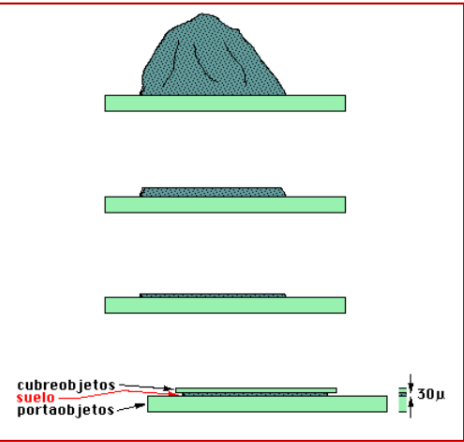
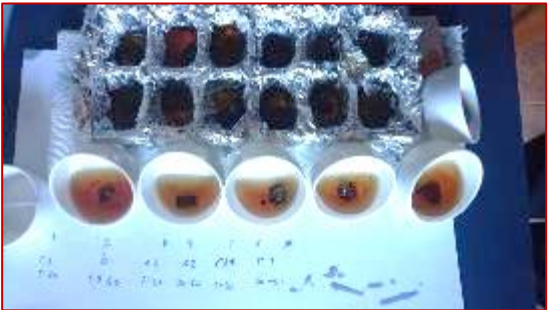
[30-40 CM]	FUNGI	BACTERIA
	[CFU/G DRY SOIL]	[CFU/G DRY SOIL]
SUST	199,000 A	31,400,000 A
KVDS	139,000 B	24,500,000 B

MAGGIORE ATTIVITÀ E BIODIVERSITÀ IN CONTROLLO RISPETTO A KVDS

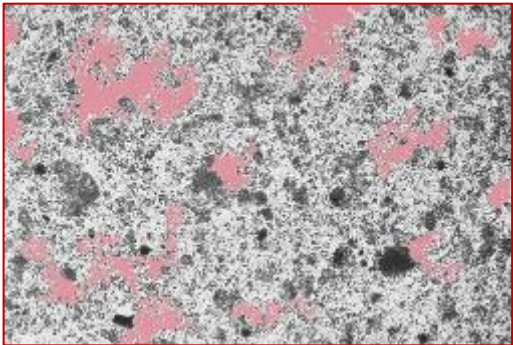
Macroporosità

	Macroporosità del suolo (%)		
	0-30 cm	30-60 cm	60-90 cm
CTRL	12.35 ± 1.78 a	7.40 ± 1.32 a	3.42 ± 0.74 a
KVDS	8.51 ± 1.61 b	4.90 ± 0.86 b	3.78 ± 1.02 a

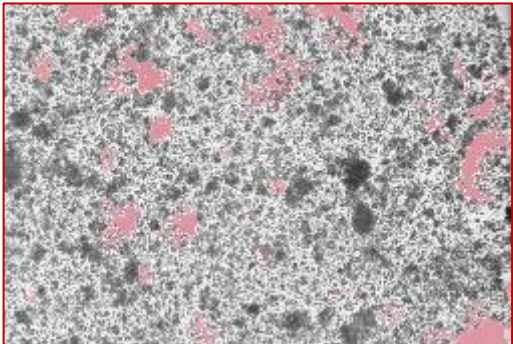
La macroporosità del suolo nei lotti di controllo (CTRL) e Moria a diverse profondità di suolo. Ogni valore rappresenta la media ± deviazione standard (*n* = 27). Diverse lettere indicano differenze significative (*p* < 0.05) mediante one-way ANOVA seguito da Tukey's HSD test.



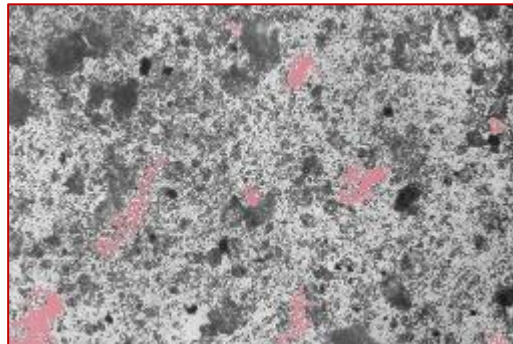
CTRL
5-30 cm



CTRL
30-60 cm



KVDS
5-30 cm



KVDS
30-60 cm

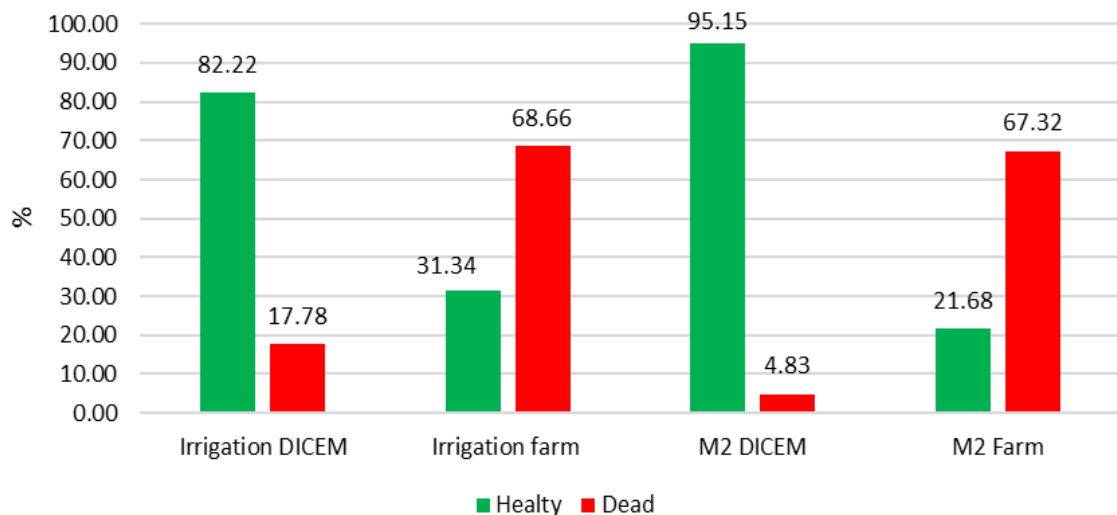
FUNZIONALITÀ RADICI

- Campo KVDS

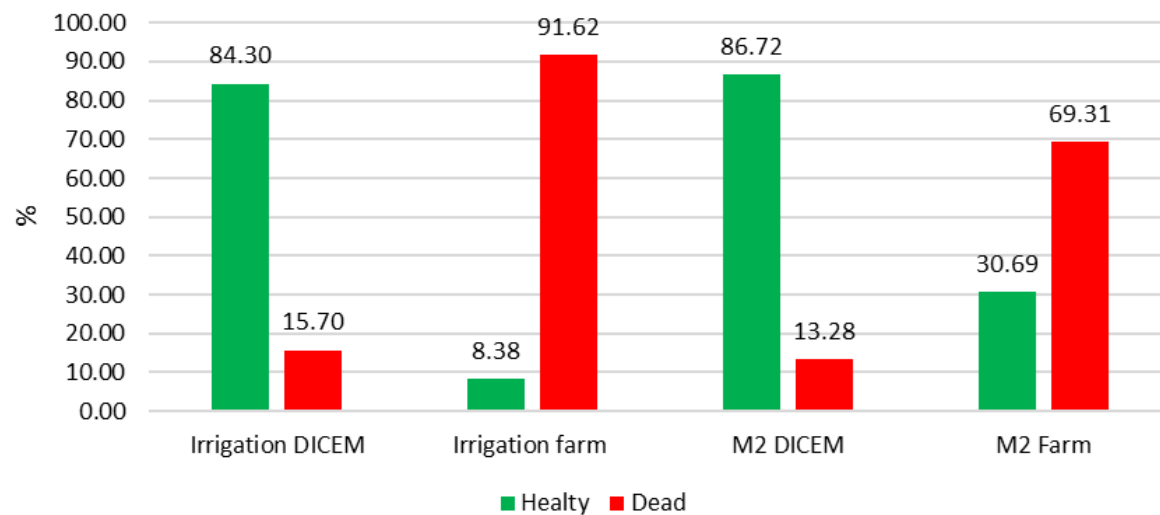


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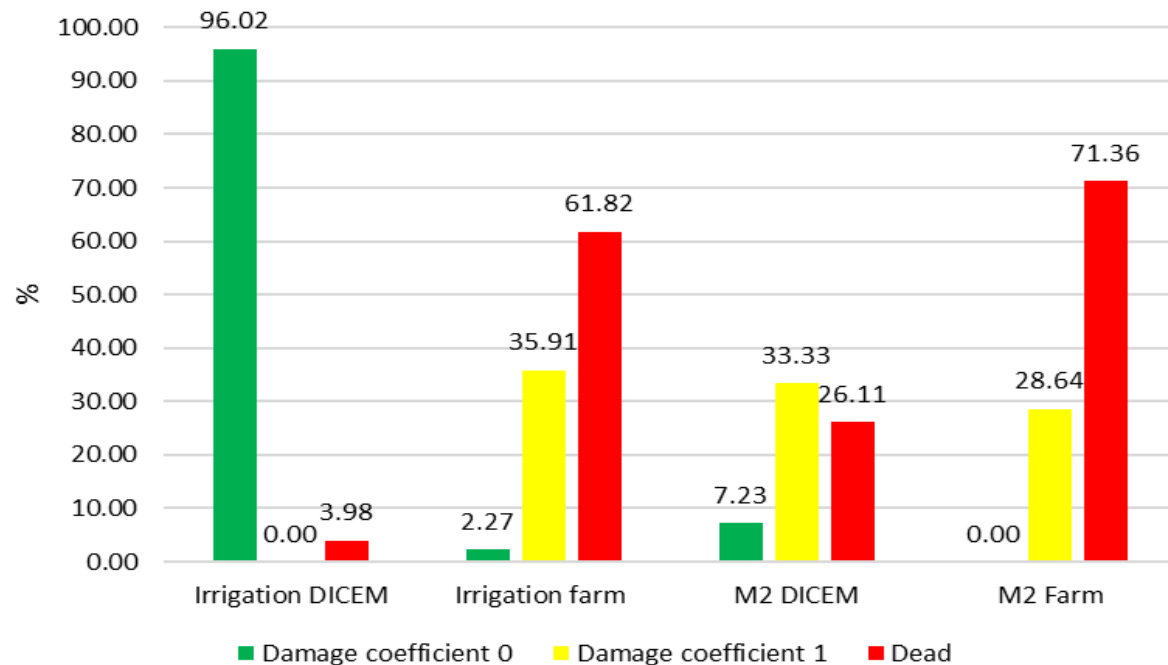
Root functionality (% of dry weight) d:<5mm



Root functionality (% of dry weight) d: 5-10 mm



Root functionality (% of dry weight) d: >10 mm



SUOLO SANO > PIANTA SANA



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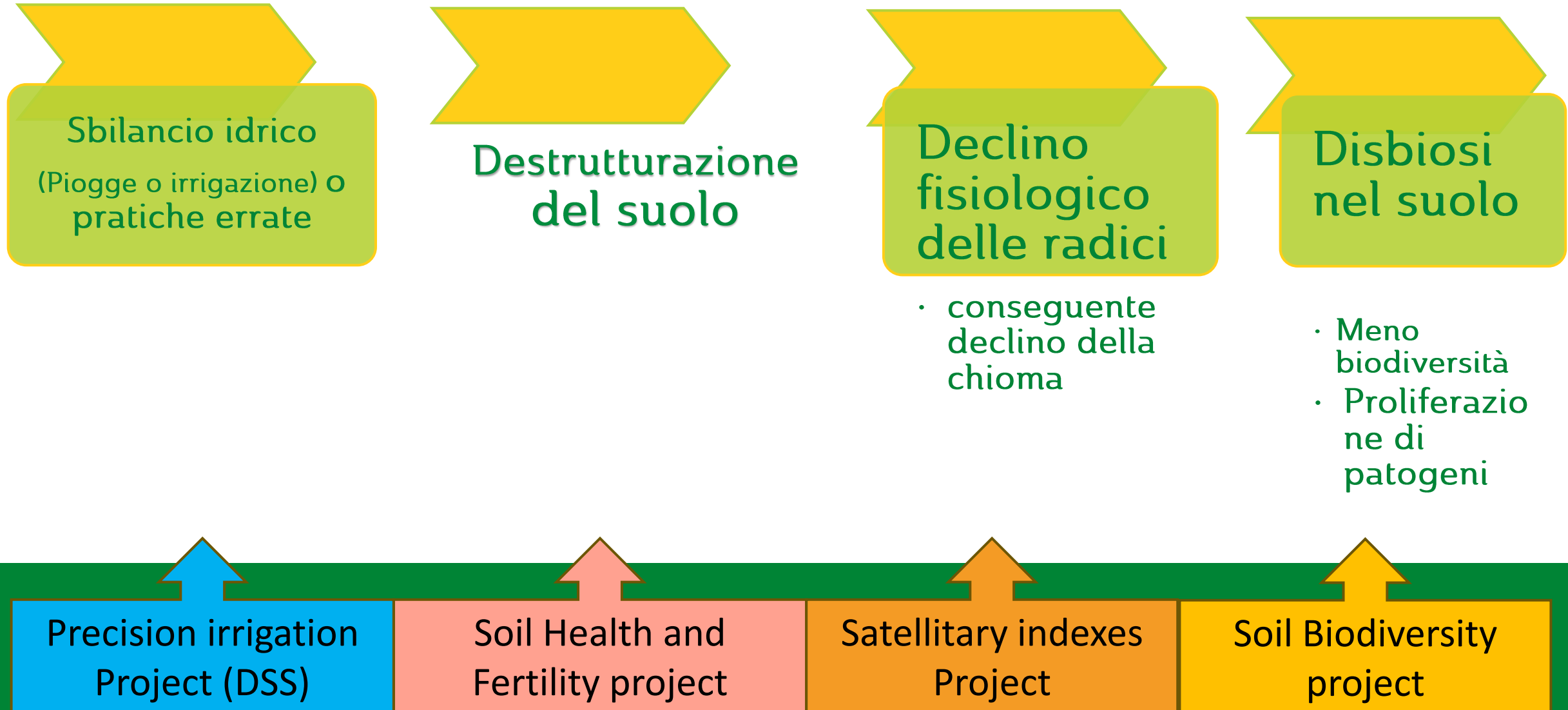
March 2021



March 2022

Asfixiated soil removed, changed with pit, same plant, same atmospheric environment
Incredible root recovery > the key is on the soil health!

LA KVDS È UN PROCESSO, NON UNA MALATTIA!





**IT'S A COMPLEX WORLD,
BUT WE KEEP GOING!**