



# THE EFFECT OF LEGUMES AND SUNFLOWER INTERCROPPING ON SOIL COMPACTION

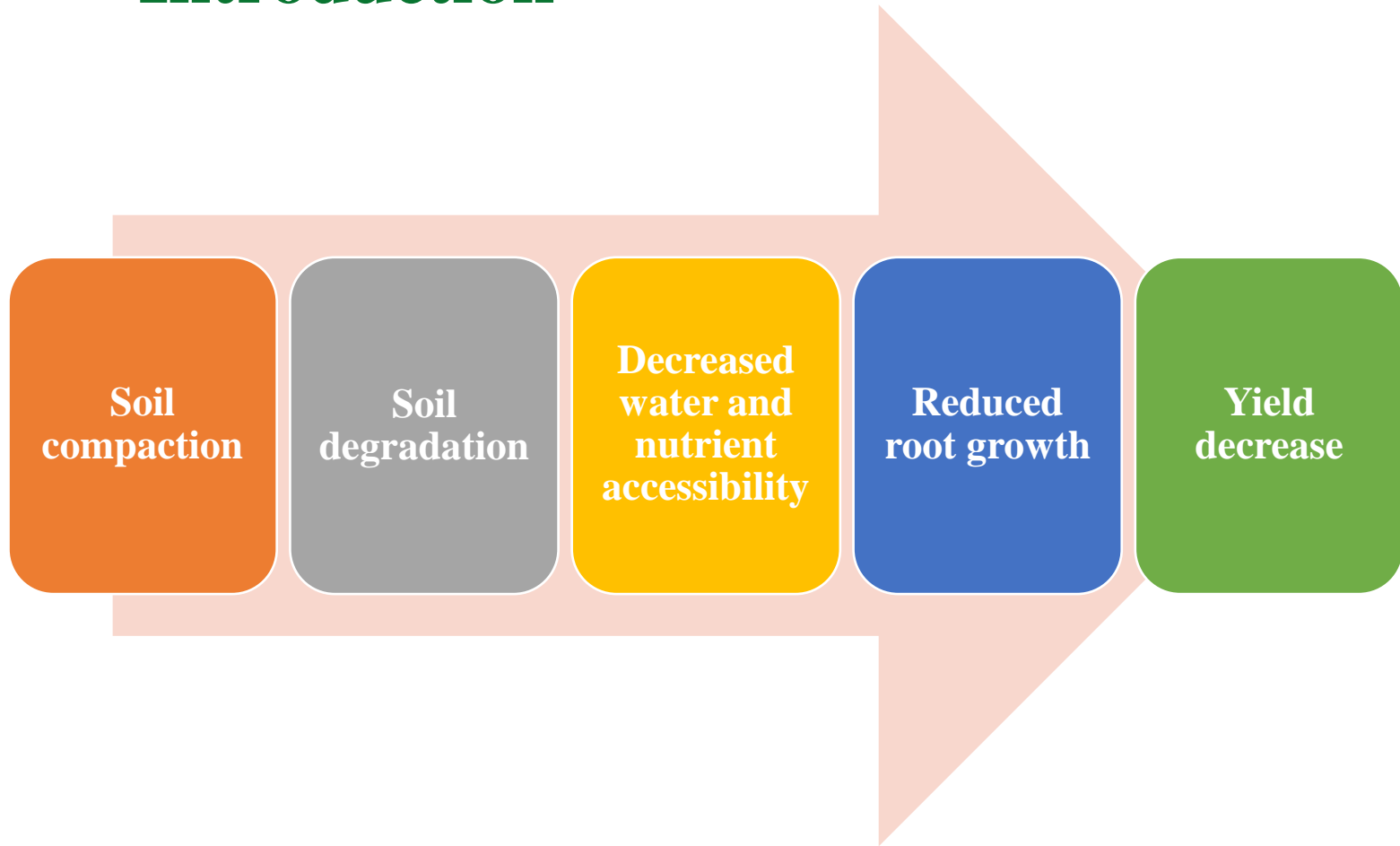
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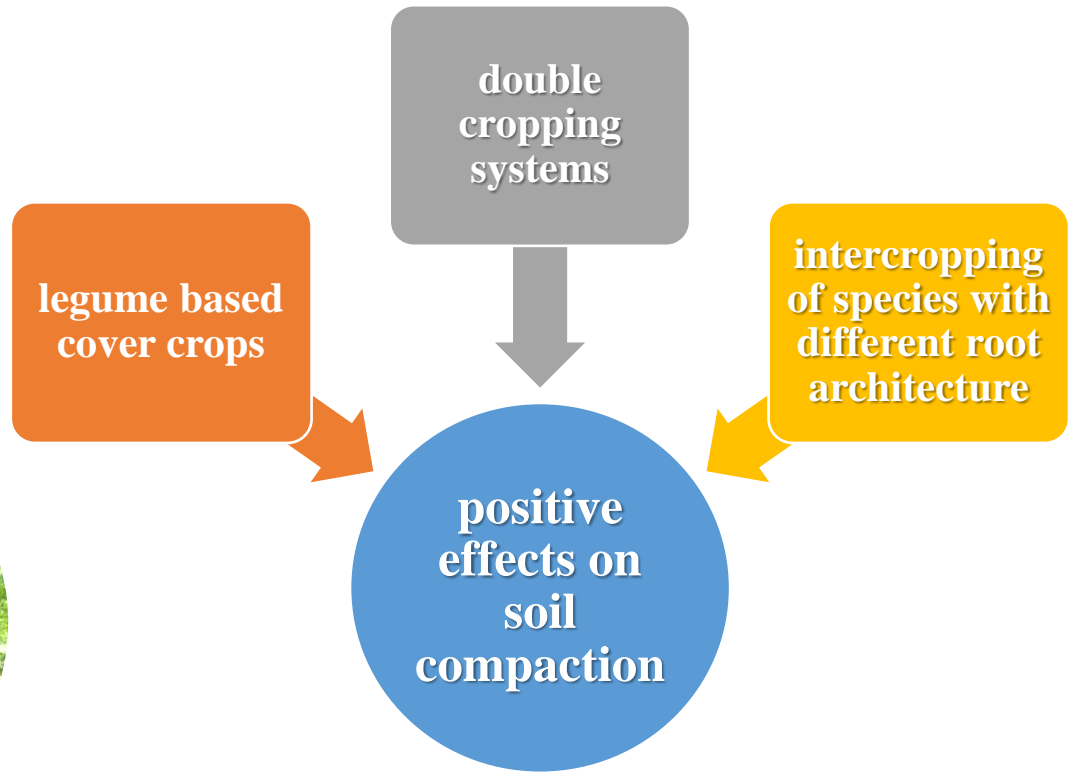
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# Introduction



# Research aim



To assess the effect of intercropping of sunflower and legumes on soil compaction.

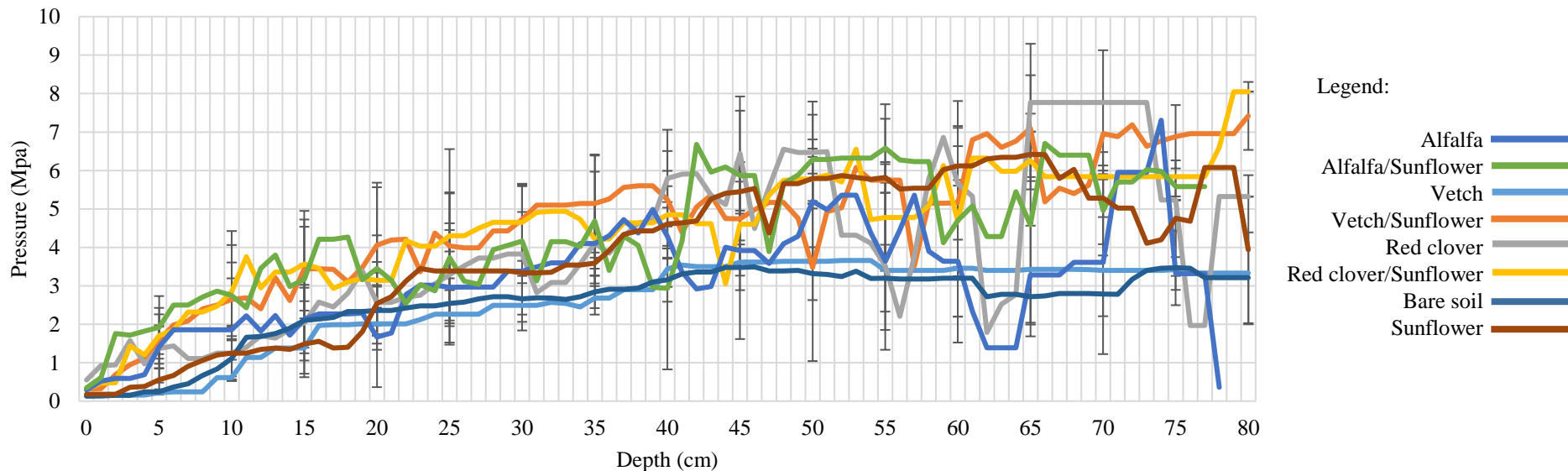
# Material and method

- NS sunflower hybrids were intercropped with common vetch, red clover or alfalfa, whereas sole cropping of sunflower was control.
- Soil compaction was analyzed based on resistance to penetration of the penetrometer cone into the soil up to 80 cm, and the soil water content (Vol%).
- Data processing was done with Penetroviewer 6.03 software.



# Results

- alfalfa × sunflower = the lowest Cone index (CI) (2.3),
- red clover × sunflower = the highest Cone index (3.1),
- common vetch × sunflower = the highest value of specific soil resistance in the 0-20 cm depth (2.81 MPa),
- common vetch × sunflower = increased compaction in the 20-40 cm layer (4.15 MPa),
- alfalfa × sunflower = the lowest specific resistance (1.33 MPa), at the depth of 0-20 cm.





# Conclusion

The necessity to pay more attention to selection of suitable plant species with different root architecture, which will reduce compaction, and lead to development of favorable water-air regimen, arises.

Poster 6.3

# Thank you for the attention

