



# Prévibest: a tool to understand and assess the risk of soil compaction during beet harvest

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## The Prévibest project (2020 – 2024)

Develop a prototype tool to help farmers, technicians, and sugar industry stakeholders understand the issue of deep soil compaction caused by beet harvesting and facilitate its consideration in harvest organization and field management decisions in order to reduce this risk.

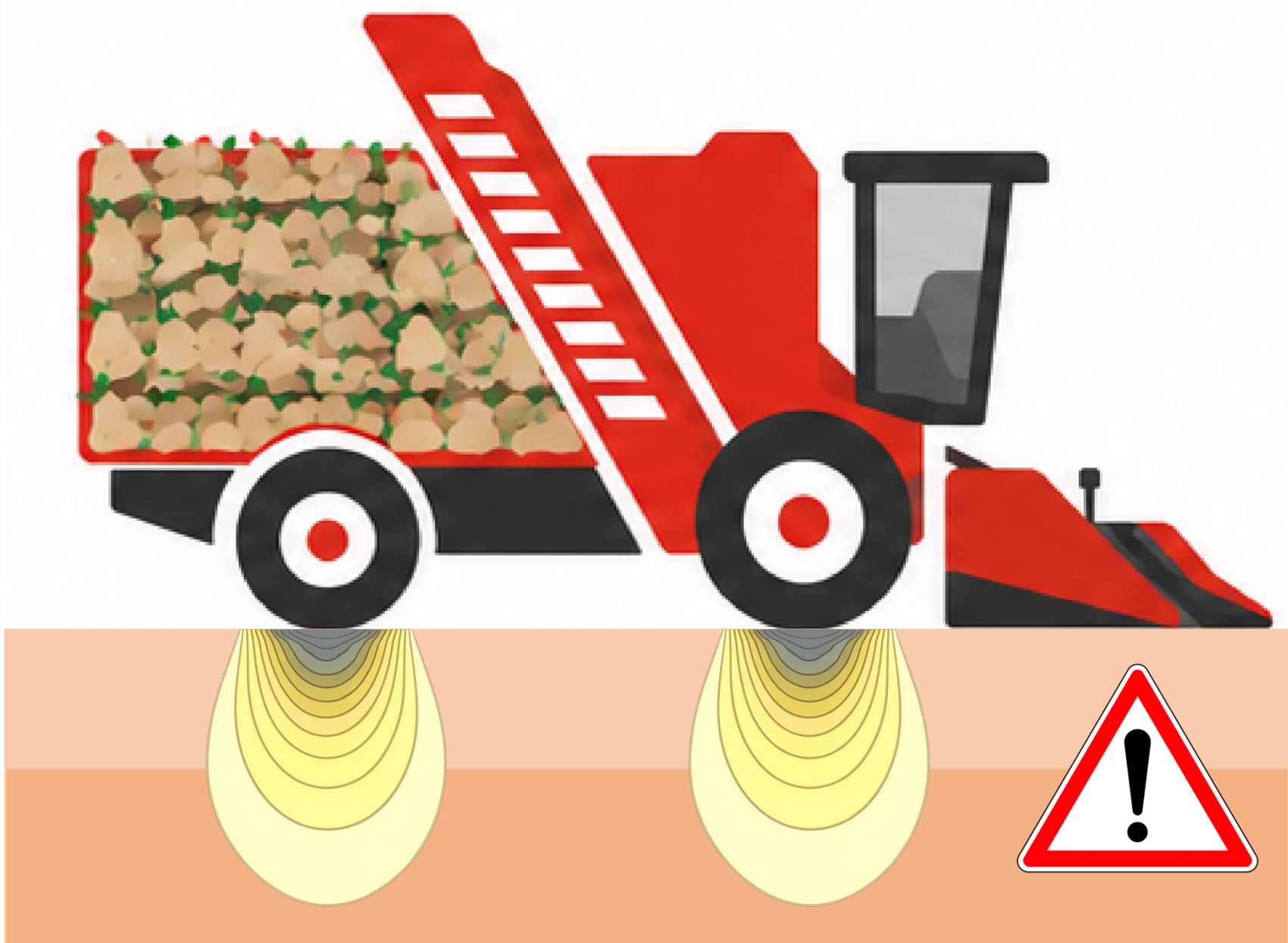
Funded by



Collaborators

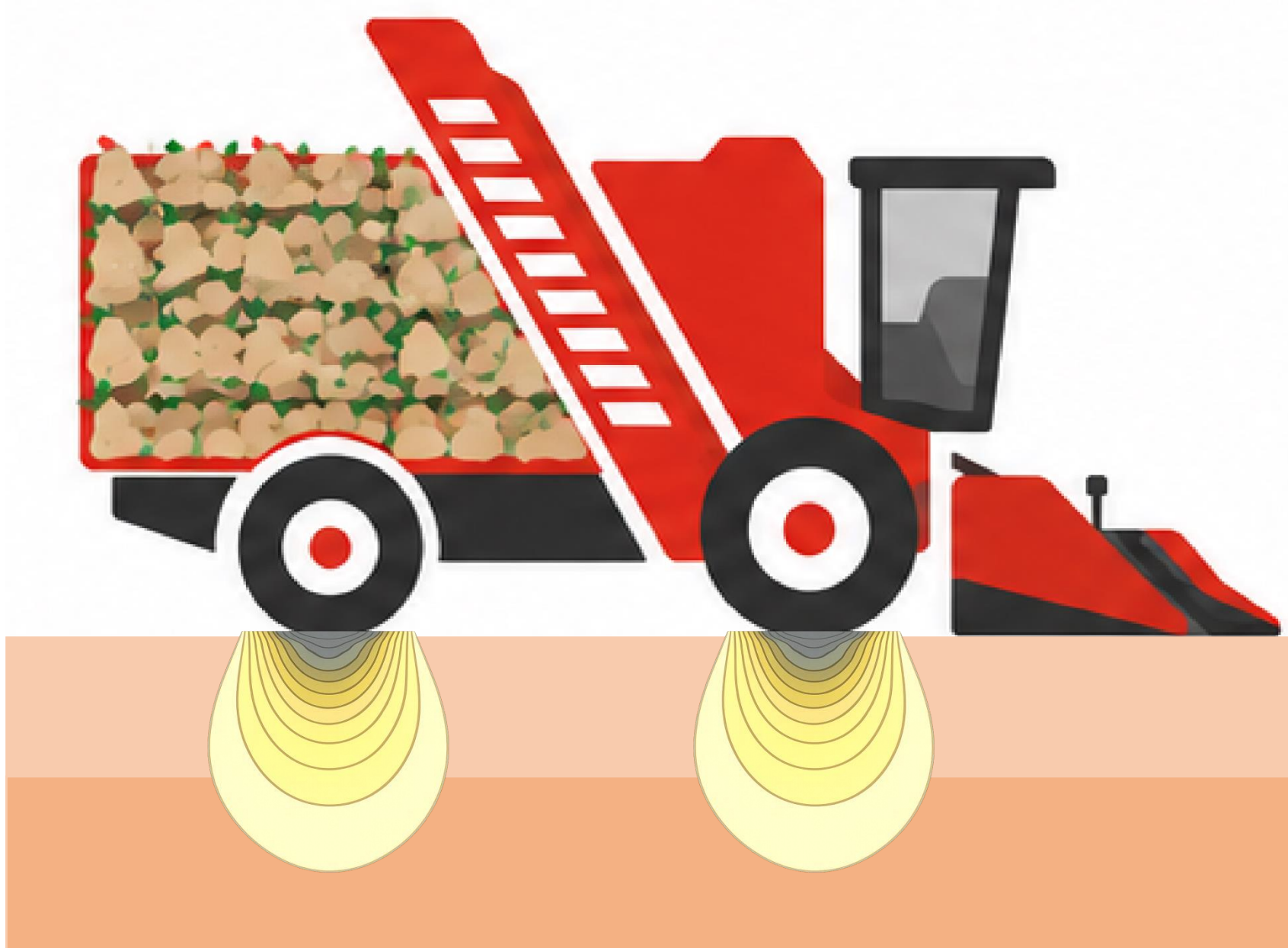


Beet harvest from September to January: soil with high humidity level.



High risk of deep soil compaction risk across the entire beet field.

Levers advise by the tool set by the farmer during the beet harvest.



Low risk of deep soil compaction risk on a limited area of the field.



Online free tool (available in September 2026)

### 1 Farmer's beet harvesting situation

Gather all the information to do compaction simulations

Arras (62000) ☒

Arras

Type de sol  
Argile Calcaire profond

Machine  
Intégrale 2 essieux (petite trémie)

Date de simulation  
1 décembre 25

Profondeur de travail du sol  
30 cm

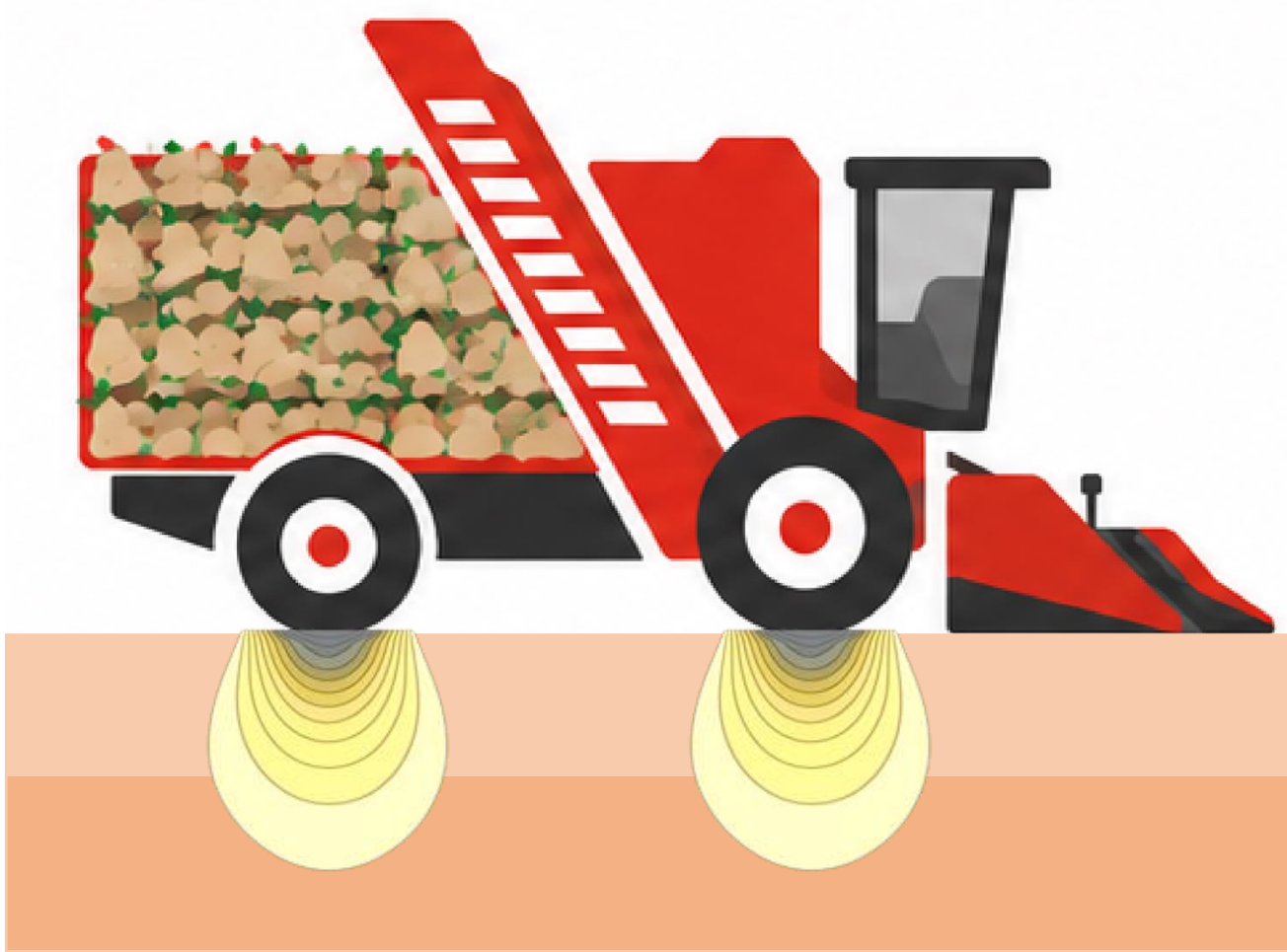
Culture suivant la betterave  
Blé

Délai avant retour d'une culture à risque de tassement (dont Betterave)  
3 ans ou moins

Simuler mon risque

(Location, type of soil, date of beet harvest, type of beet harvester, tillage depth, crops after beet)

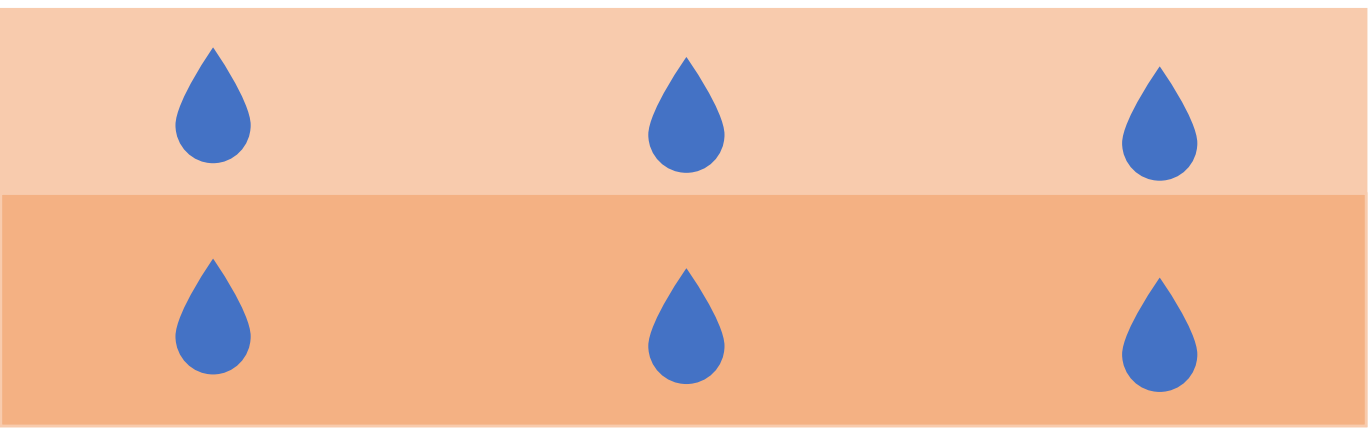
At different beet harvester loads



Soil compaction simulation with Terranimo®

### 2 Simulations

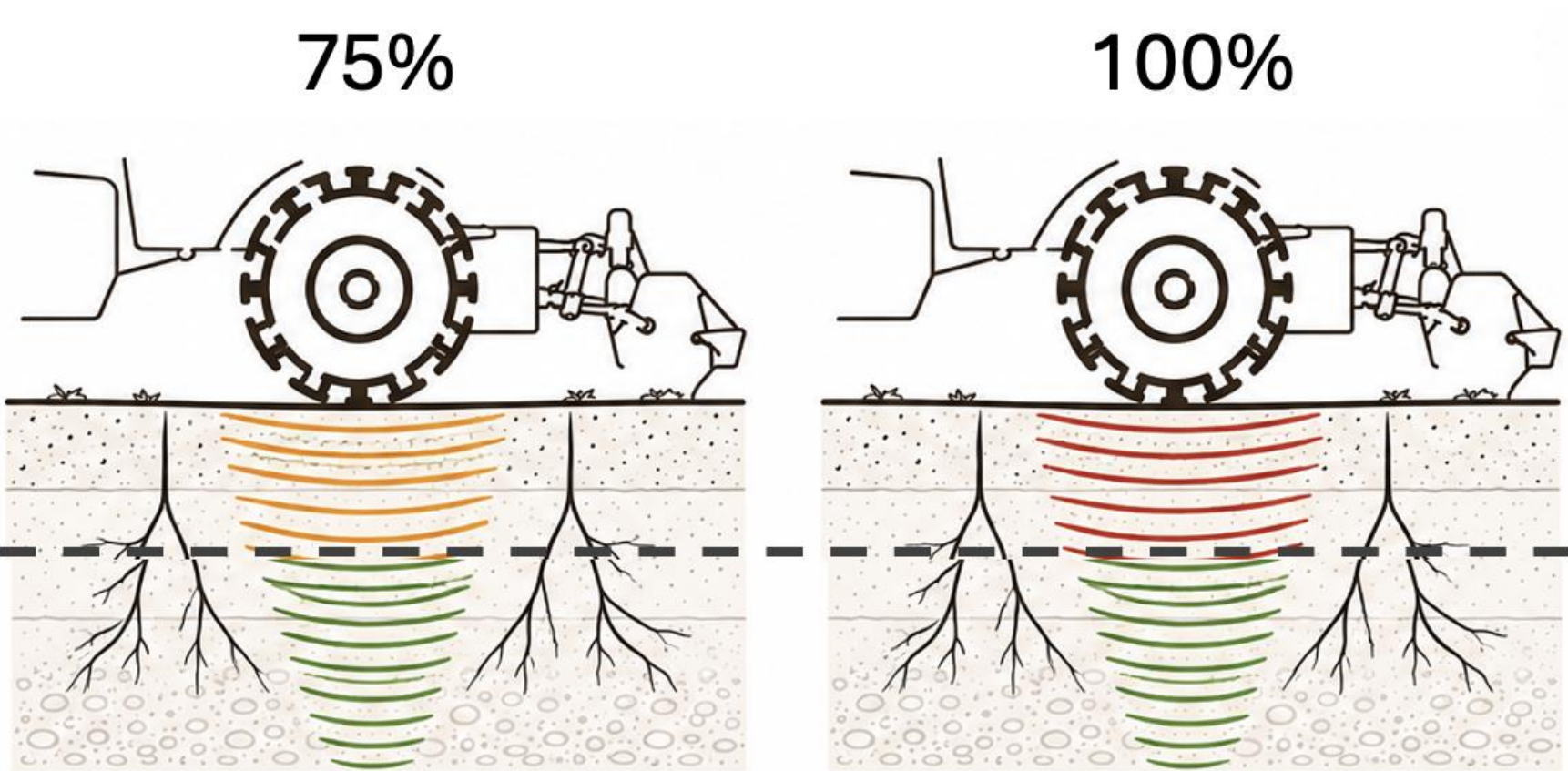
Soil humidity simulation with STICS®



With MétéoFrance® data

At different depths

### 3 Diagnostic and recommendations

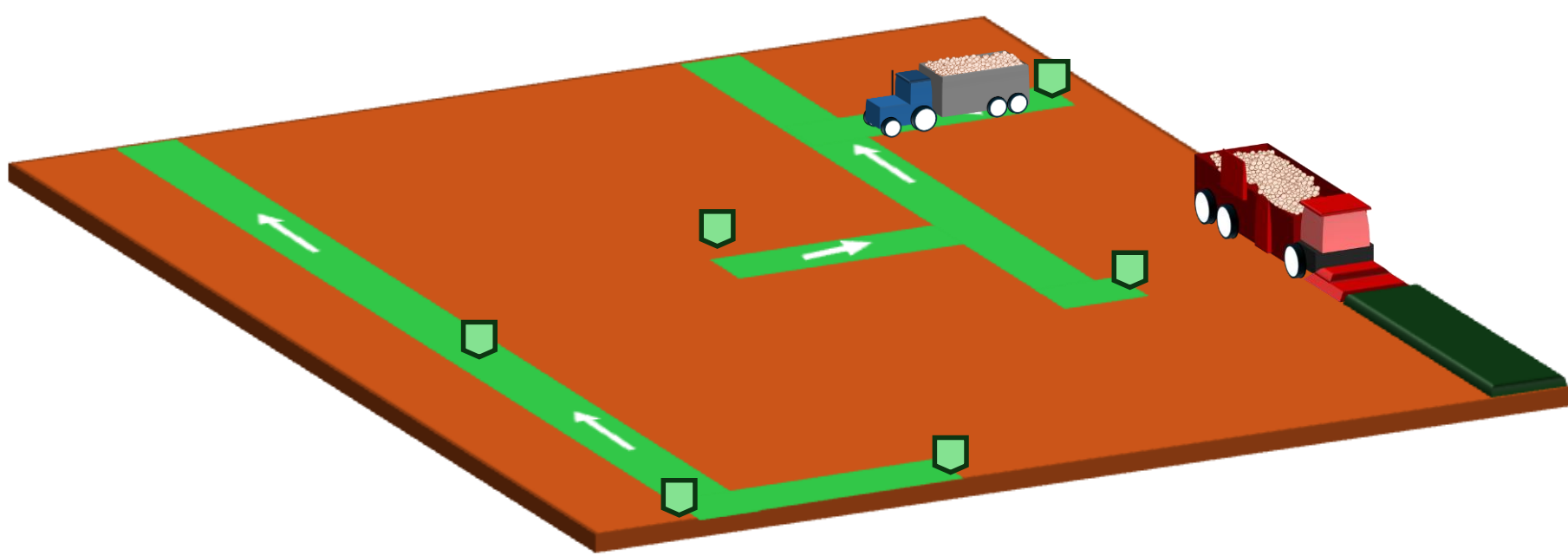


Is farmer's situation at risk of superficial/deep soil compaction?



Is farmer's crop rotation at risk regarding soil compaction?

What levers can the farmer do during the beet harvest to reduce its soil compaction risk?



Raise farmers' awareness of the risk of deep soil compaction