

WHAT IS

soil compaction

WHEN
YOU APPLY
TOO MUCH PRESSURE
TO YOUR SOIL....

GOOD GROWTH OF PLANT ROOTS

- efficient use of nutrients
- higher yield
- higher crop quality
- higher value of the crops on the market

IMPROVED NUTRIENT MANAGEMENT

- larger community of soil organisms
- better accessibility of nutrients for the roots

DIFFICULTIES ON NUTRIENT MANAGEMENT

- decreased amount of soil organism's communities
- impact on nutrient cycling
- need for more fertilizers

SHALLOW AND DEFORMED ROOTS

- suffer from water stress
- lower quantity
- lower quality
- lower market value

DIFFICULTIES TO DIG

- plant's growth is hampered

WATER LOGGING

- issues with water management and ground water recharge
- no air to plant's roots
- enhanced erosion

COMPACTED SOIL

the risk for compaction depends on the soil particles type (soil texture), soil structure and aggregation, and mechanical stress

...THE SPACE BETWEEN SOIL PARTICLES IS REDUCED AND PLANT ROOTS CANNOT GROW WELL. BUT WHAT ARE SOIL PARTICLES?

HEALTHY SOIL

ADEQUATE SOIL AERATION AND TEMPERATURE DISTRIBUTION

IMPROVED WATER MANAGEMENT

- more water infiltration
- adequate ground water recharge

GROUNDWATER

LOW RISK
for compaction

soil particles represent the mineral part of the soil

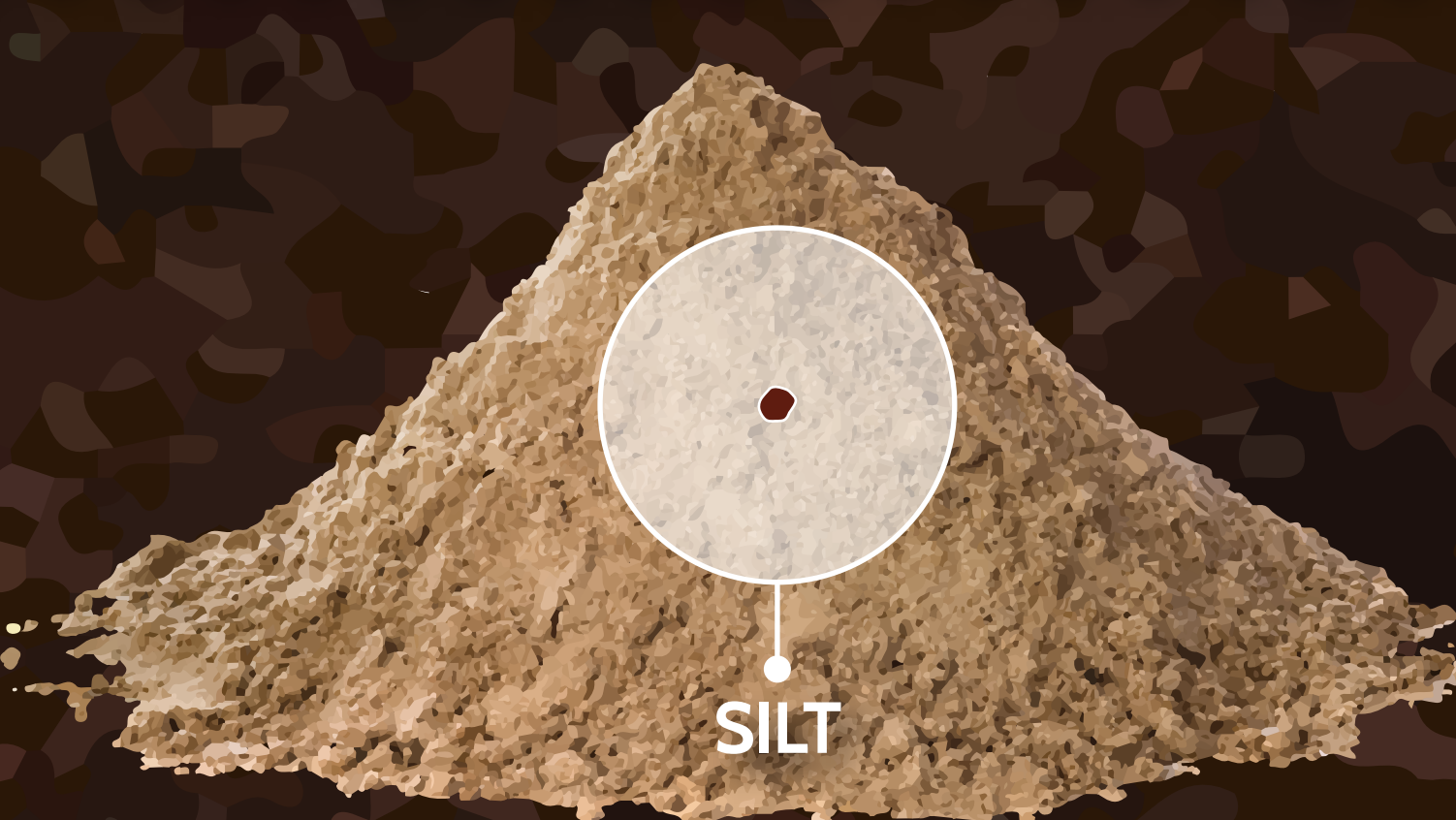
HIGH RISK
for compaction



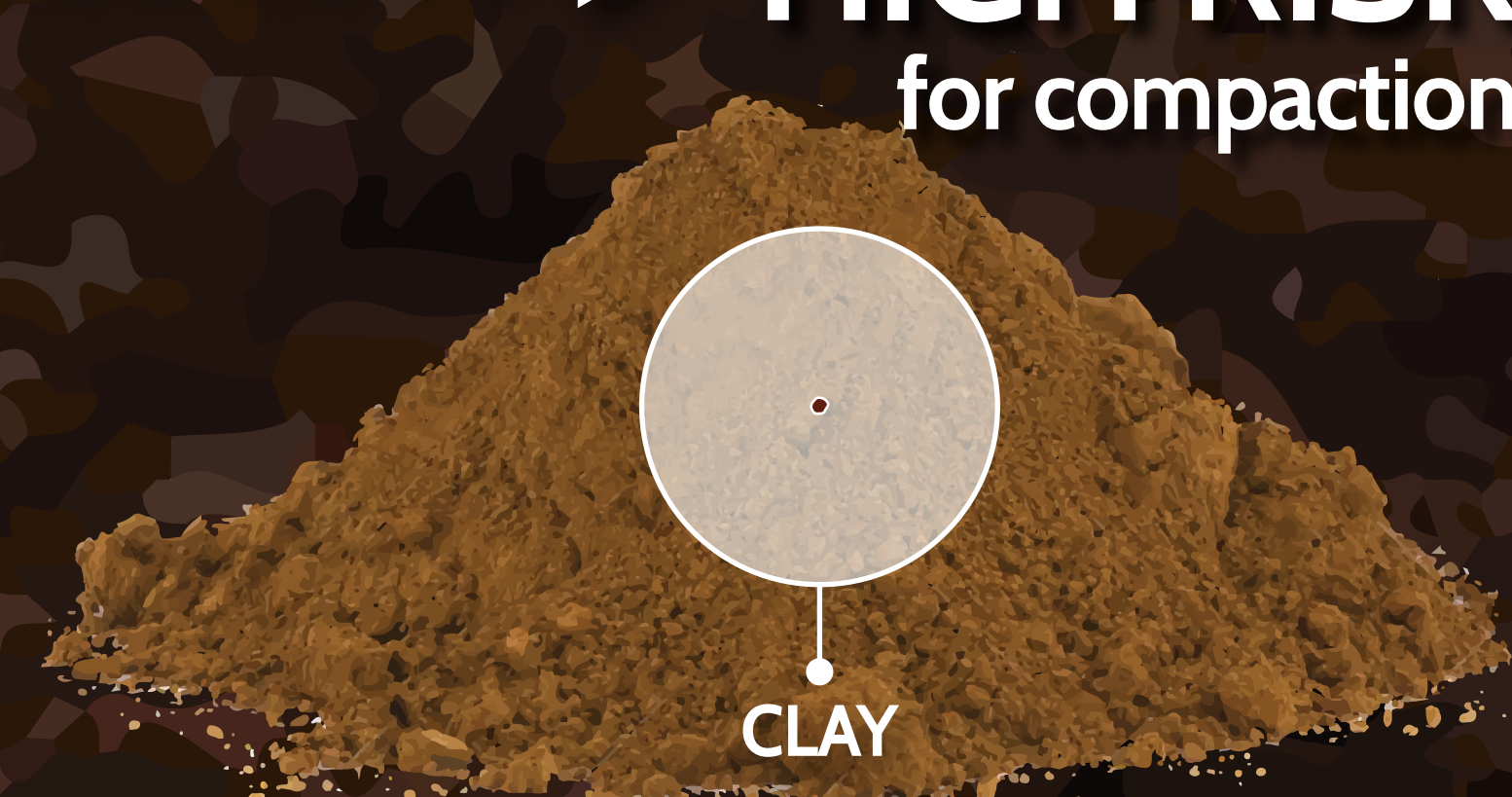
GRAVEL



SAND



SILT



CLAY

STEP 1

Does the soil smell mouldy?

YES

STEP 2

Can you dig a hole in your soil?

NO

STEP 3

Is it easy to dig a hole? (approx. a 30cm depth)

NOT EASY

STEP 4

Check how your crop/tree roots look

SHALLOW AND/OR DEFORMED

LONG AND/OR WELL FORMED

STEP 5

Take a metal rod and push it deeper into the soil. How easy is it to push it?

EASY

DIFFICULT, THE SOIL FEELS TOO HARD TO PUSH ANY FURTHER

WELL DONE!
YOUR SOIL DOES NOT SEEM TO HAVE COMPACTION ISSUES

YOUR SOIL IS COMPACTED

LET'S FIND OUT IF YOUR SOIL IS COMPACTED!

THE DEEPER HORIZONS OF YOUR SOIL ARE COMPACTED

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