sandy and light silty soils

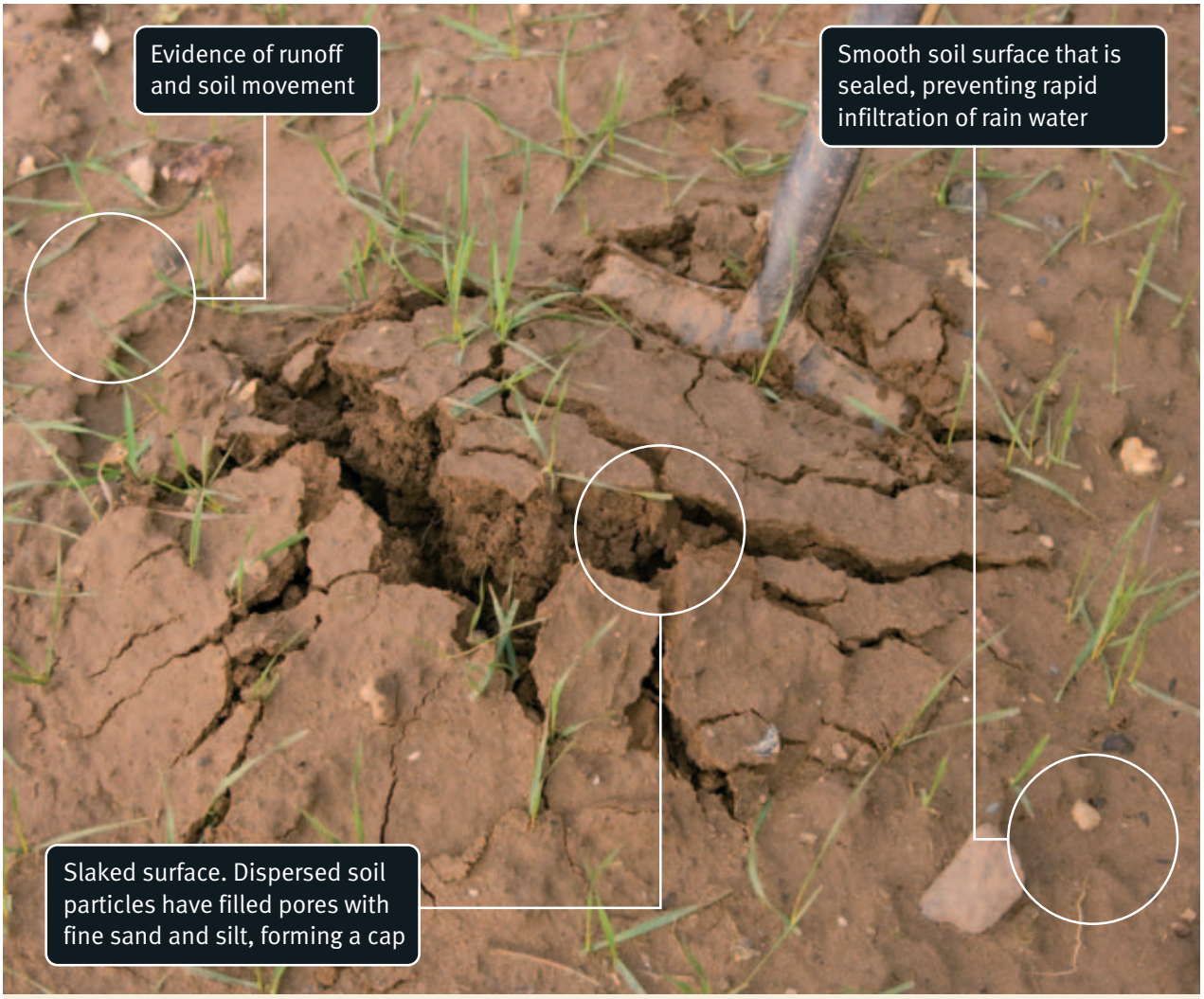
sandy and light silty soils

good structure

Sandy loam

High risk to slaking, runoff and erosion. Early drilling of cereals in September with good crop cover has helped to protect the soil surface.

poor structure



Sandy loam

Lack of crop cover and a fine tilth has exacerbated the slaking process. These soils are naturally unstable due to their low clay and organic matter content.

good structure

Sandy loam

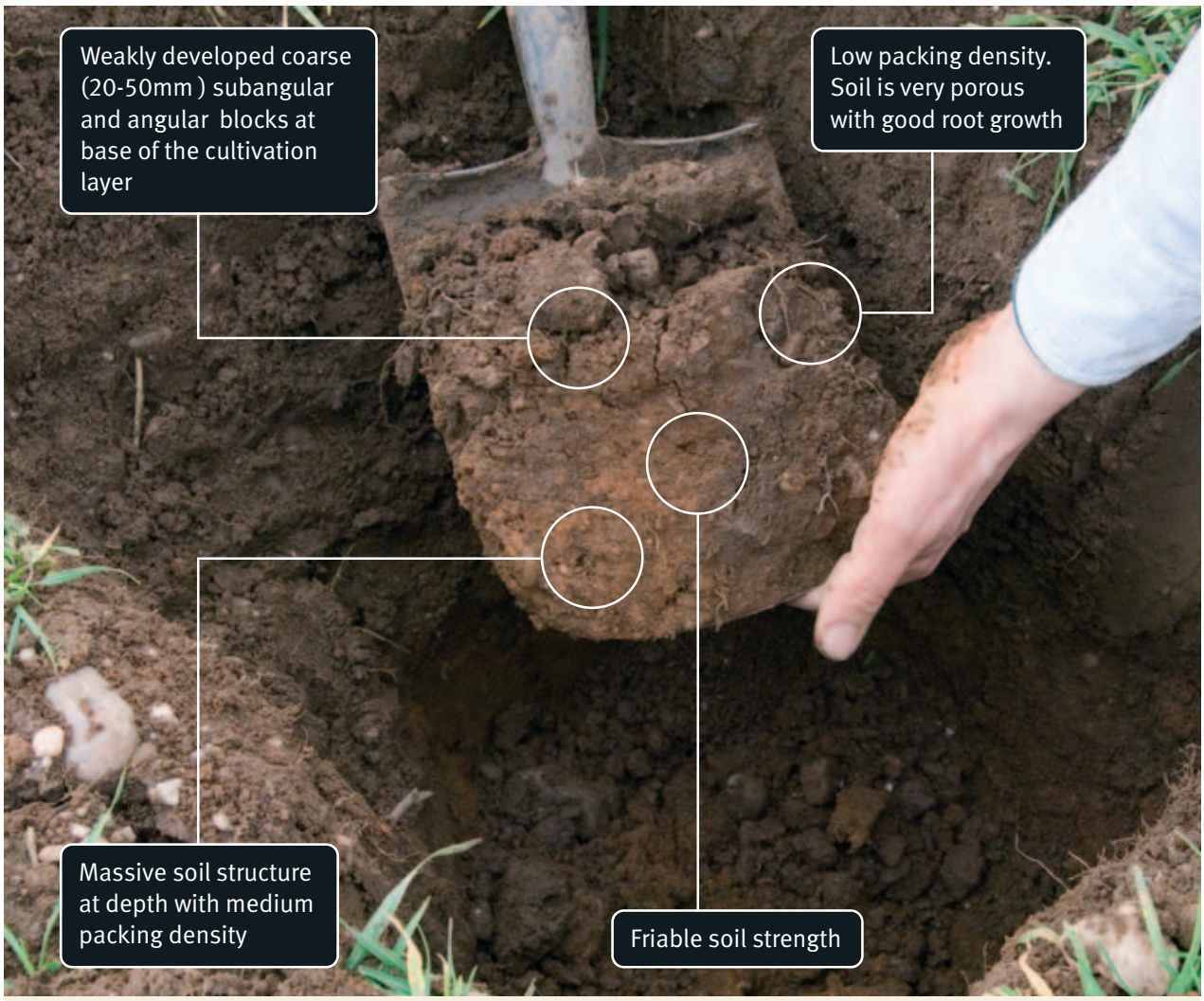
Drilling of cereals at optimum soil moisture has ensured a good soil structure. Abundant roots help to stabilise the soil aggregates.

poor structure

Sandy loam

Heavy traffic during harvesting of potatoes has compressed the soil. Cultivation is needed to remove the compaction.

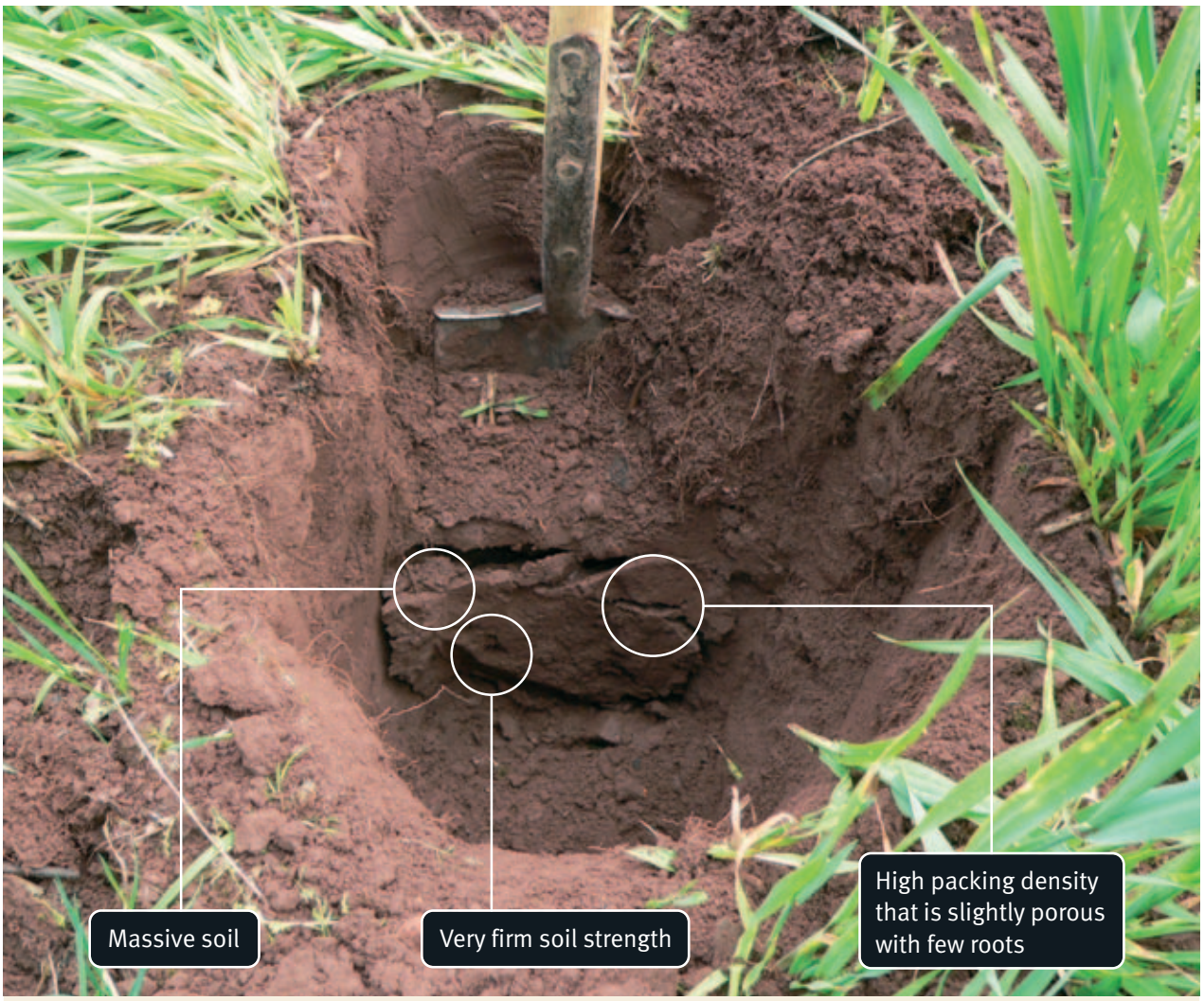
good structure



Sandy loam

The low clay and organic matter content in the subsoil has resulted in natural slumping, producing a poor soil structure. However, the subsoil has many pores allowing good root growth. Absence of mottles indicates a free draining subsoil.

poor structure



Sandy loam

Compression of the wet soil by traffic and cultivation has produced a high packing density. Drainage and root growth are affected by the reduced porosity.

medium soils

medium soils

good structure

Clay loam

The clay content is sufficiently high to give some stability to the soil aggregates, preventing capping of the surface.

poor structure

Clay loam

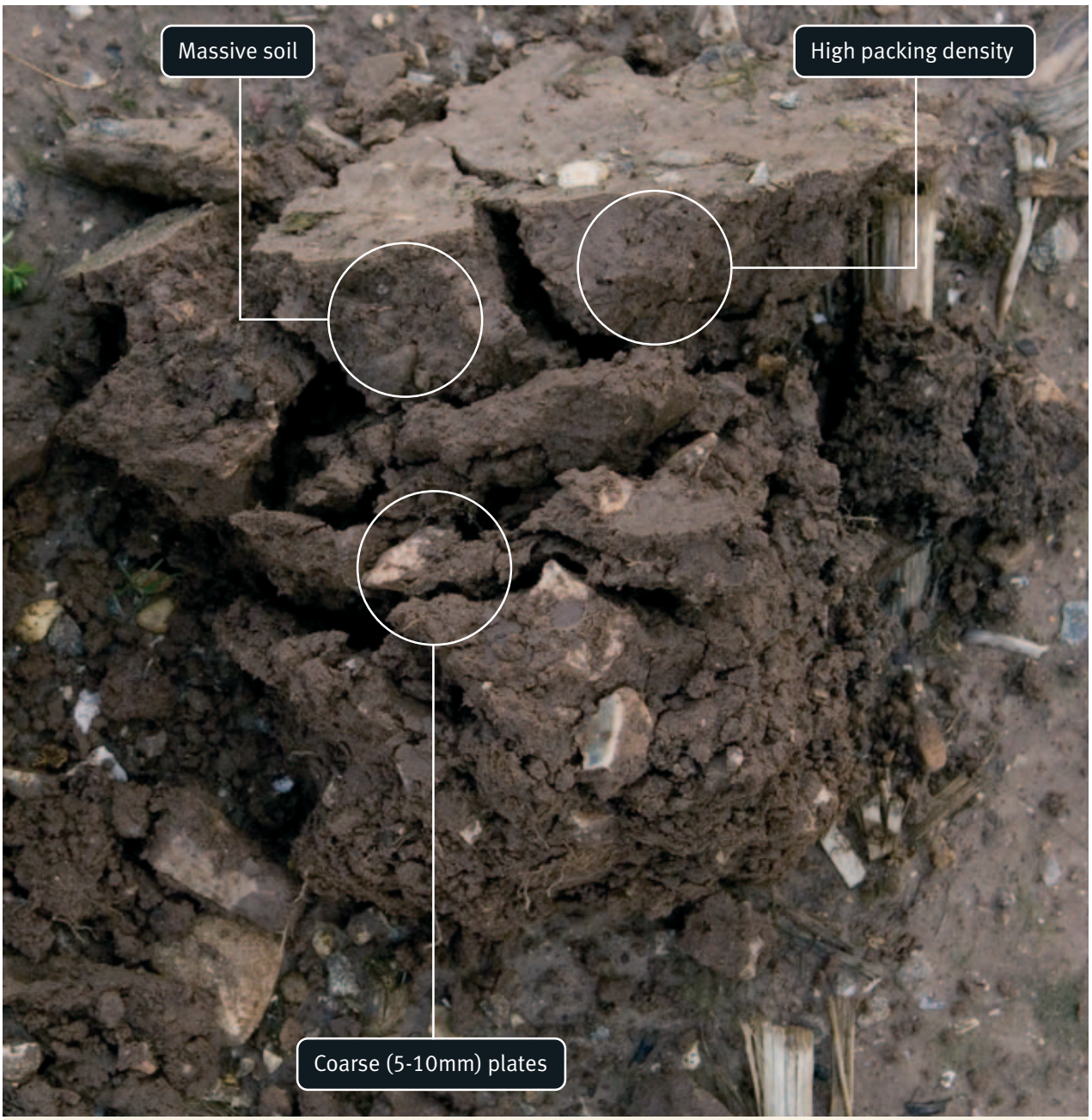
Harvesting of maize has compressed the soil surface causing ponding of rainwater. This has subsequently caused the surface to slake and cap.

good structure

Clay loam

Soil beneath a hedge, with a high organic matter content and soil biodiversity.

poor structure



Clay loam

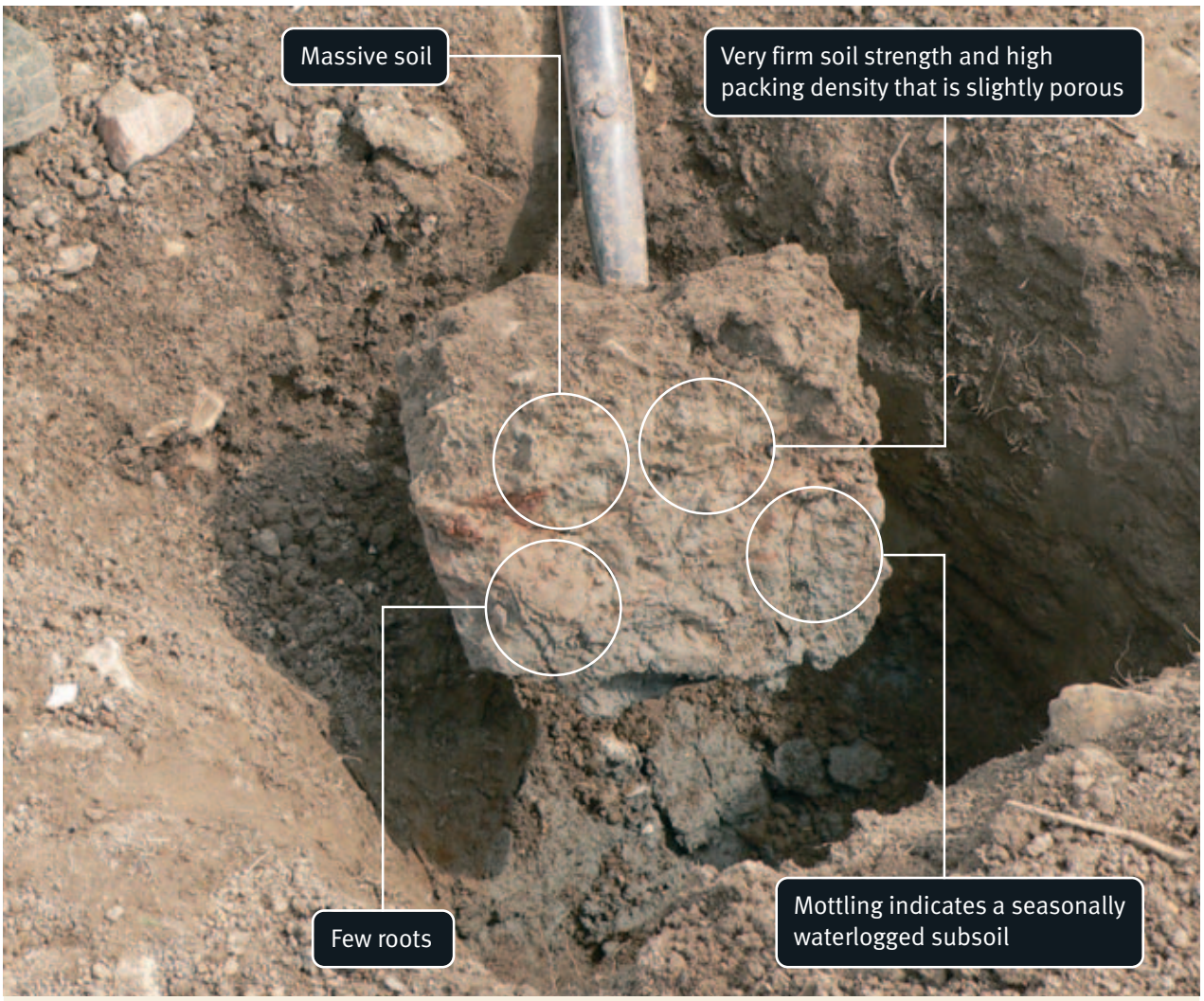
Compression of the soil has produced a high packing density and slight porosity. Cultivation of the soil when the soil is suitably dry will help to remove compaction.

good structure

Clay loam over clay

Grey and reddish mottle colours in the clay subsoil indicate waterlogging for part of the year. When wet, the subsoil is at high risk of compaction from traffic.

poor structure



Clay loam

The clay subsoil has been compressed by traffic and cultivation when the soil has been wet and plastic.

heavy soils

heavy soils

good structure

Clay

The soil in this field is naturally acidic and is not as stable as calcareous clay soil.

poor structure

Clay

These clay soils are slowly permeable and are waterlogged for long periods. There are few days in the autumn where landwork can be carried out without damaging soil, particularly in high rainfall areas.

good structure

Clay

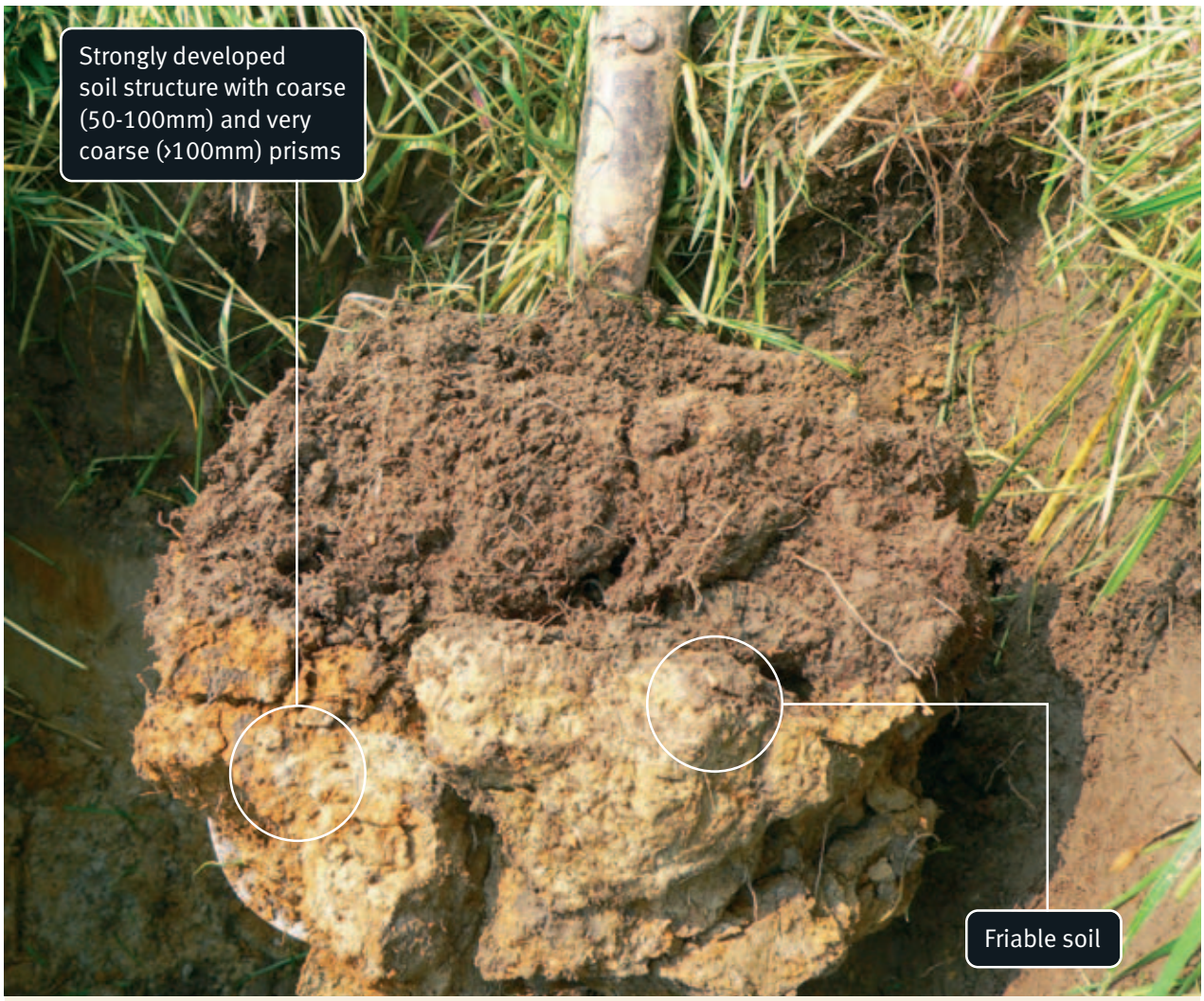
Abundant fine grass roots, earthworm activity and high organic matter have produced a good soil structure. Mottling indicates a naturally slowly draining soil, although good structure will improve drainage.

poor structure

Clay

Stock trampling in wet conditions has compressed the topsoil, exacerbating poor drainage. The top half (where there is more biological activity) has re-structured.

good structure



Clay

Mottling indicates a slowly permeable subsoil. Naturally high packing density. High risk to structural damage from traffic because of long periods of waterlogged conditions.

poor structure

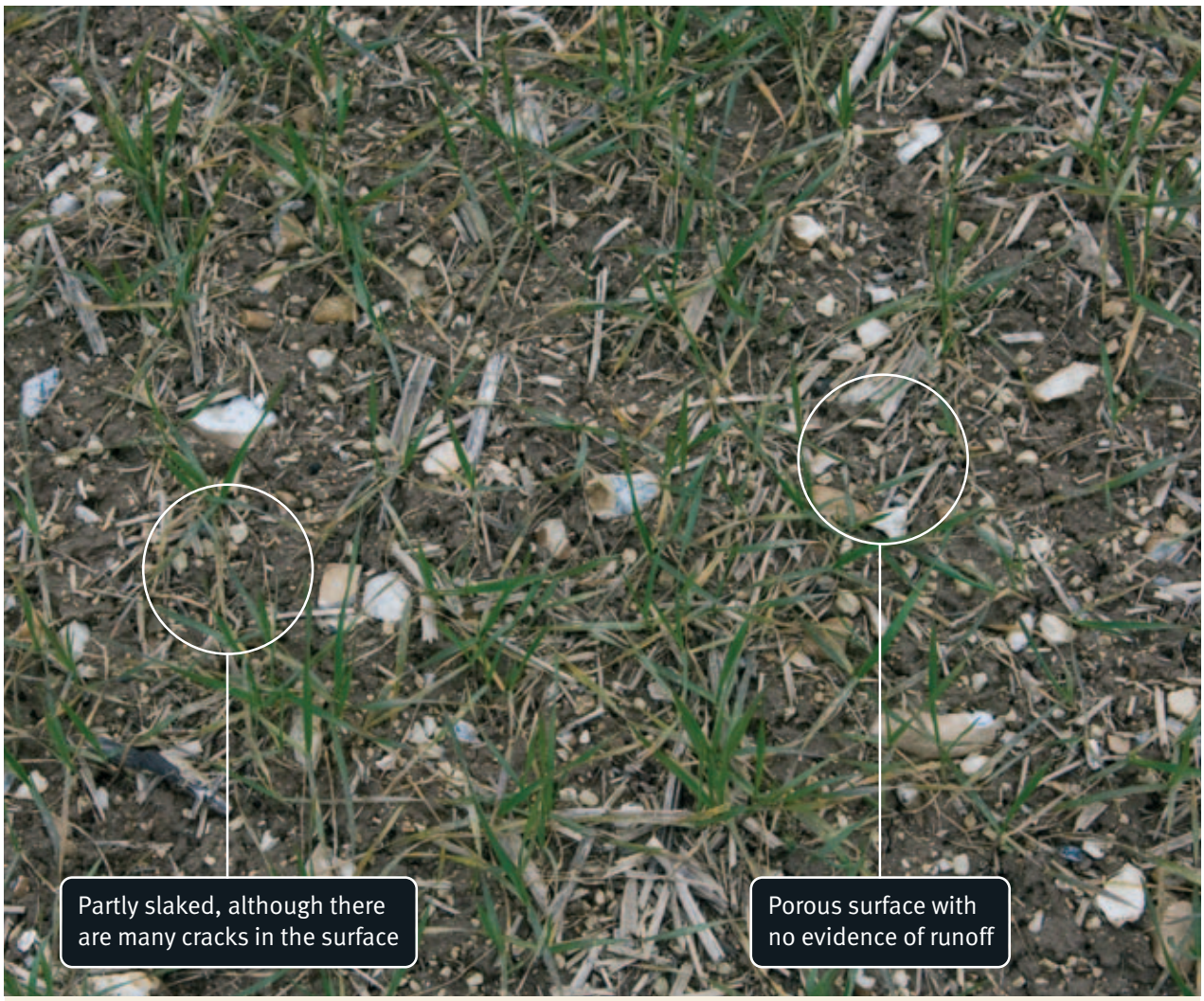
Clay

Naturally waterlogged subsoil with mottling. The soil has been compressed by traffic and cultivation in wet conditions. Improved land drainage would help to reduce the risk of damage to the soil.

chalk and limestone soils

chalk and limestone soils

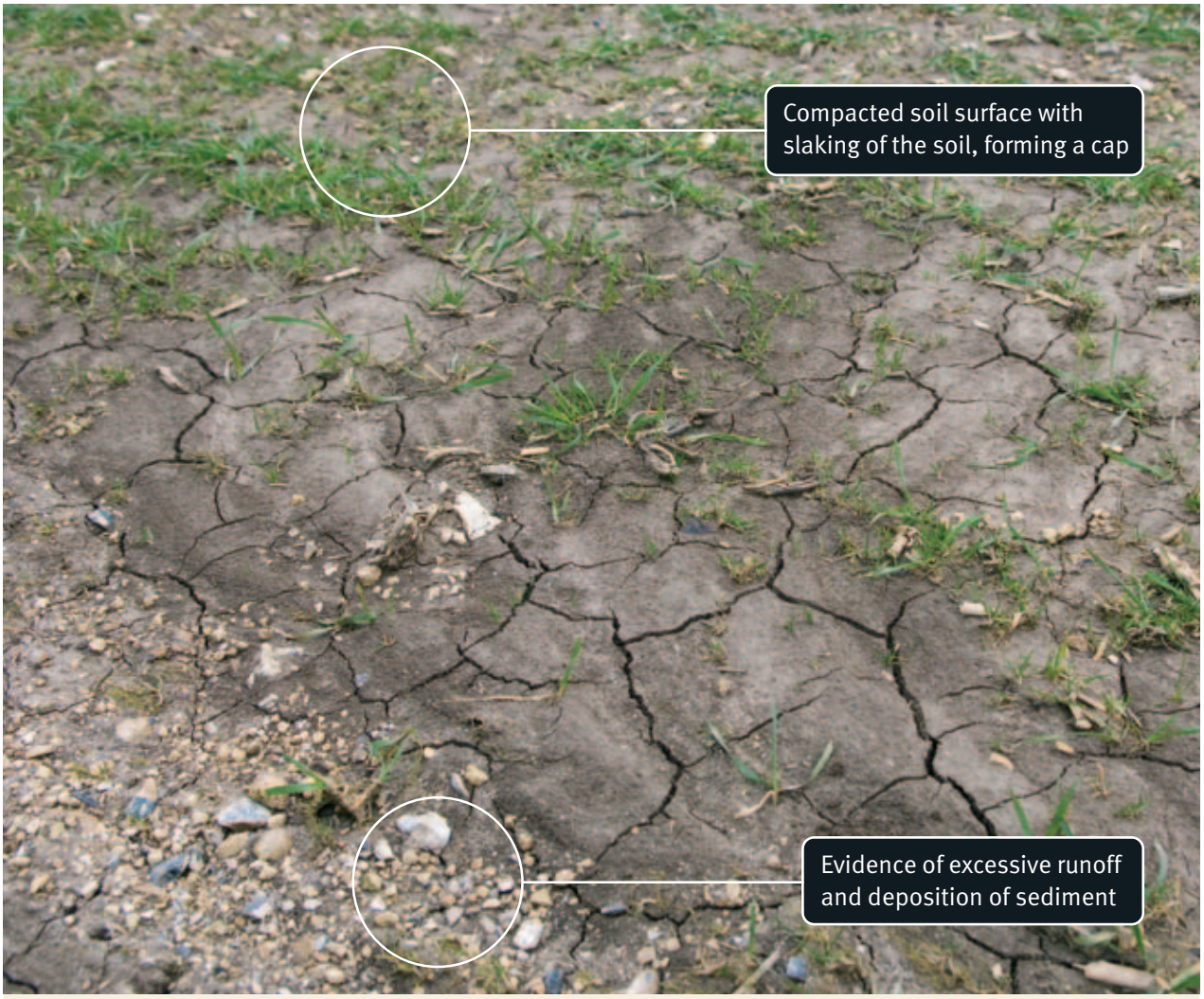
good structure



Silty clay loam

An extremely calcareous shallow soil. The high silt content makes the soil vulnerable to slaking.

poor structure



Silty clay loam

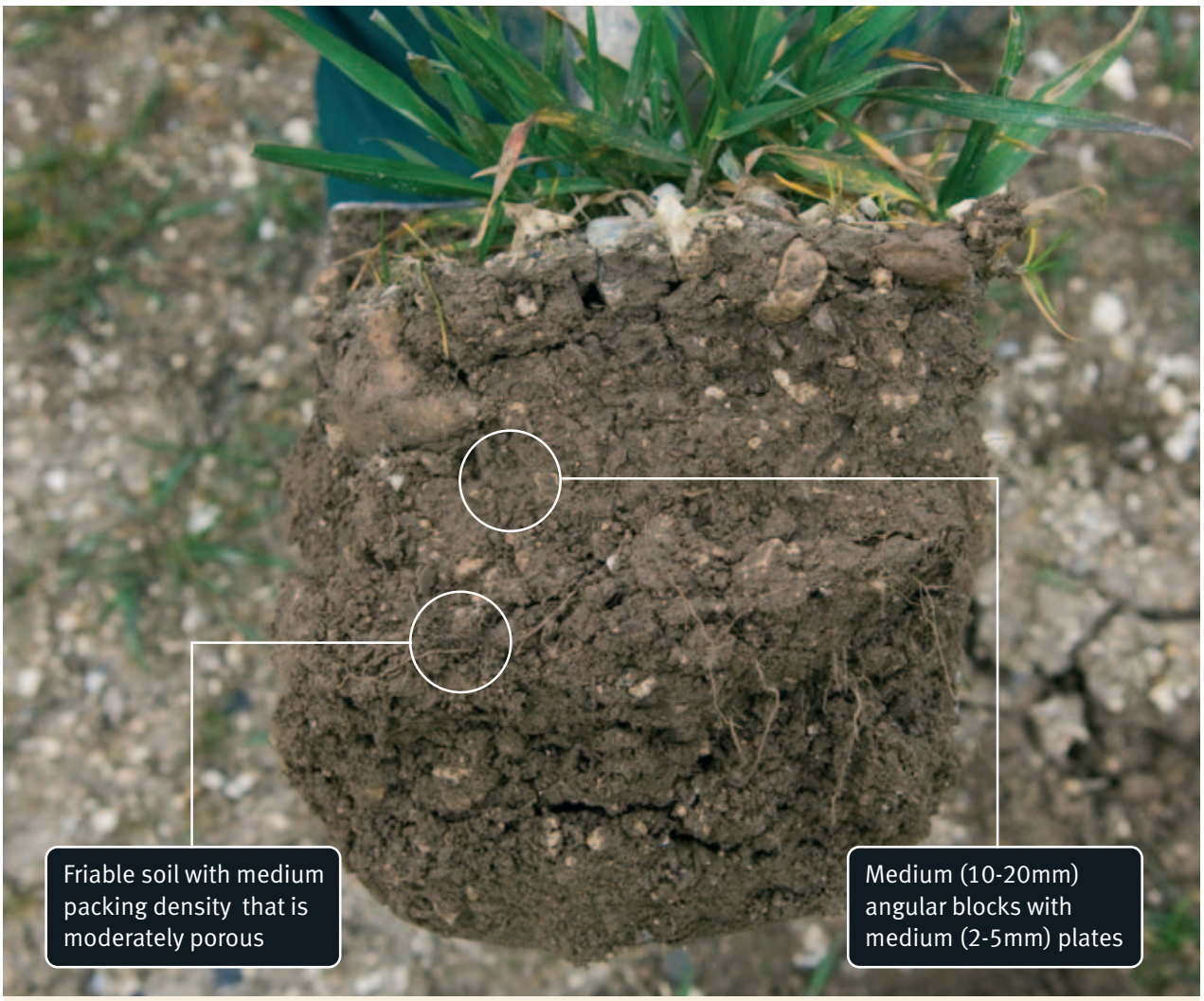
Although the soil surface has capped there is some shrinkage and re-structuring due to the high clay and calcium content.

good structure

Silty clay loam

The topsoil has a good soil structure that is stable due to the high calcium content that binds clay particles together.

poor structure



Silty clay loam

The top half of the soil has been compacted due to shallow cultivation in wet conditions.

good structure

Silty clay loam over chalk

A shallow soil, where the chalk is less than 30cm deep, that is naturally well drained.

poor structure

Silty clay loam

The base of the topsoil has been compacted. The soil sample was taken from the headland where there is more frequent farm traffic.

peaty soils

peaty soils - upland

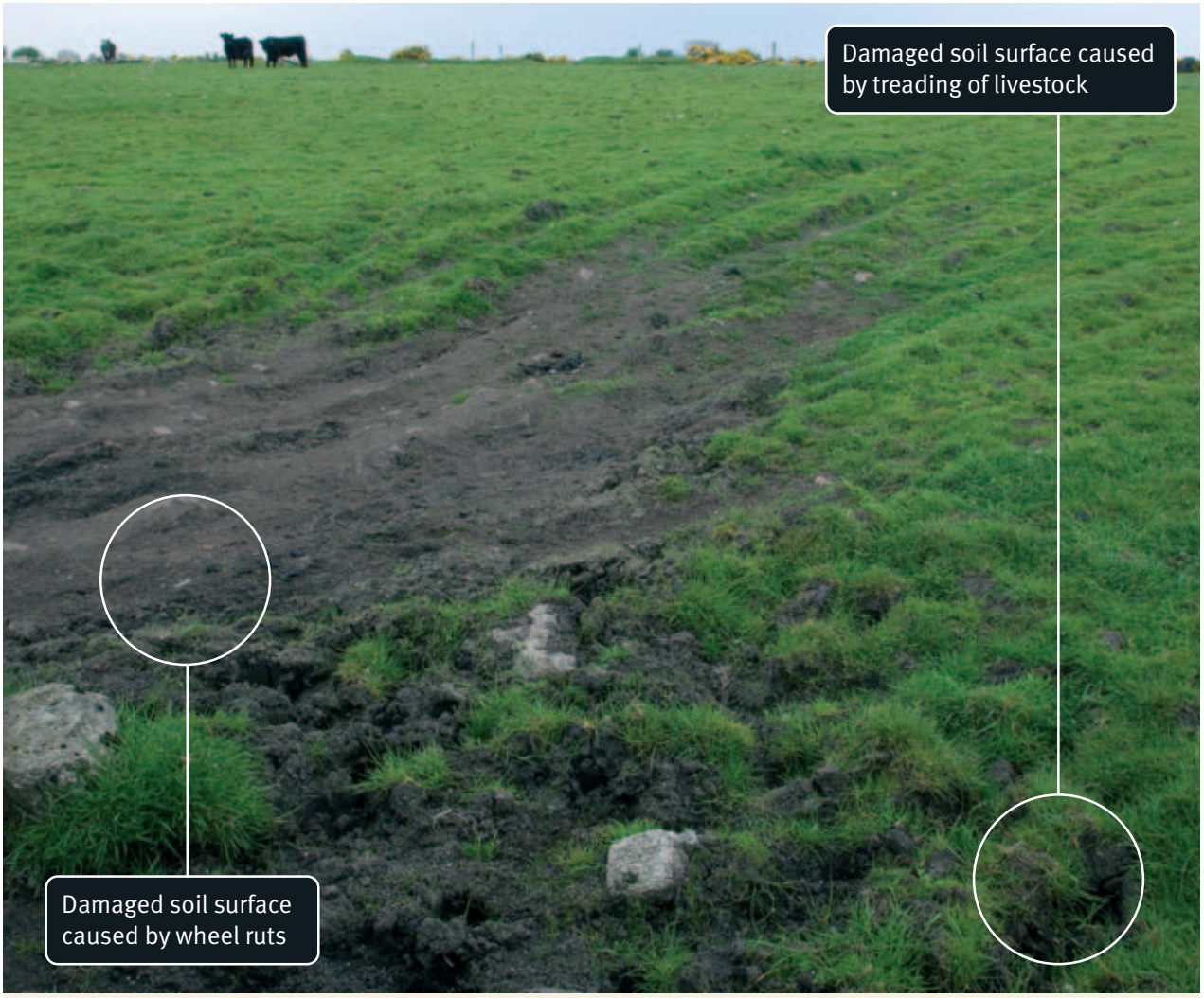
peaty soils - lowland

upland peat / good structure

Peat

These soils are waterlogged for long periods. The land requires careful grazing to avoid damaging the soil structure.

upland peat / poor structure



Peat

These soils are not capable of supporting out-wintered cattle because they lie wet for long periods. They are easily poached and damaged by farm traffic.

upland peat / good structure

Sandy peat

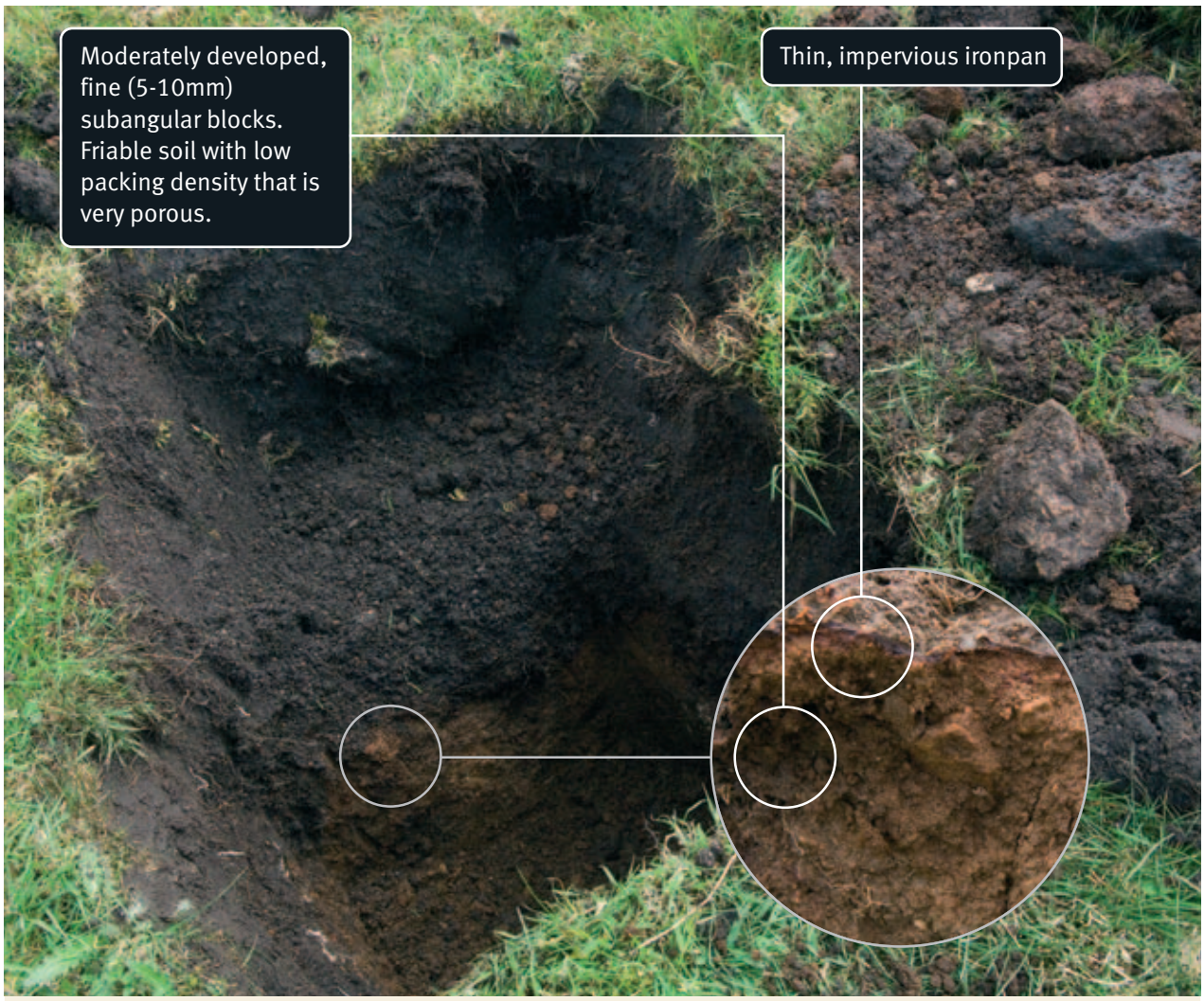
Sandy peat with a moderately developed soil structure in permanent grassland.

upland peat / poor structure

Sandy peat

A sandy peat that has been compacted by out-wintering of stock and farm traffic. The surface readily saturates, causing ponding and excessive runoff on slopes, even under moderate rainfall.

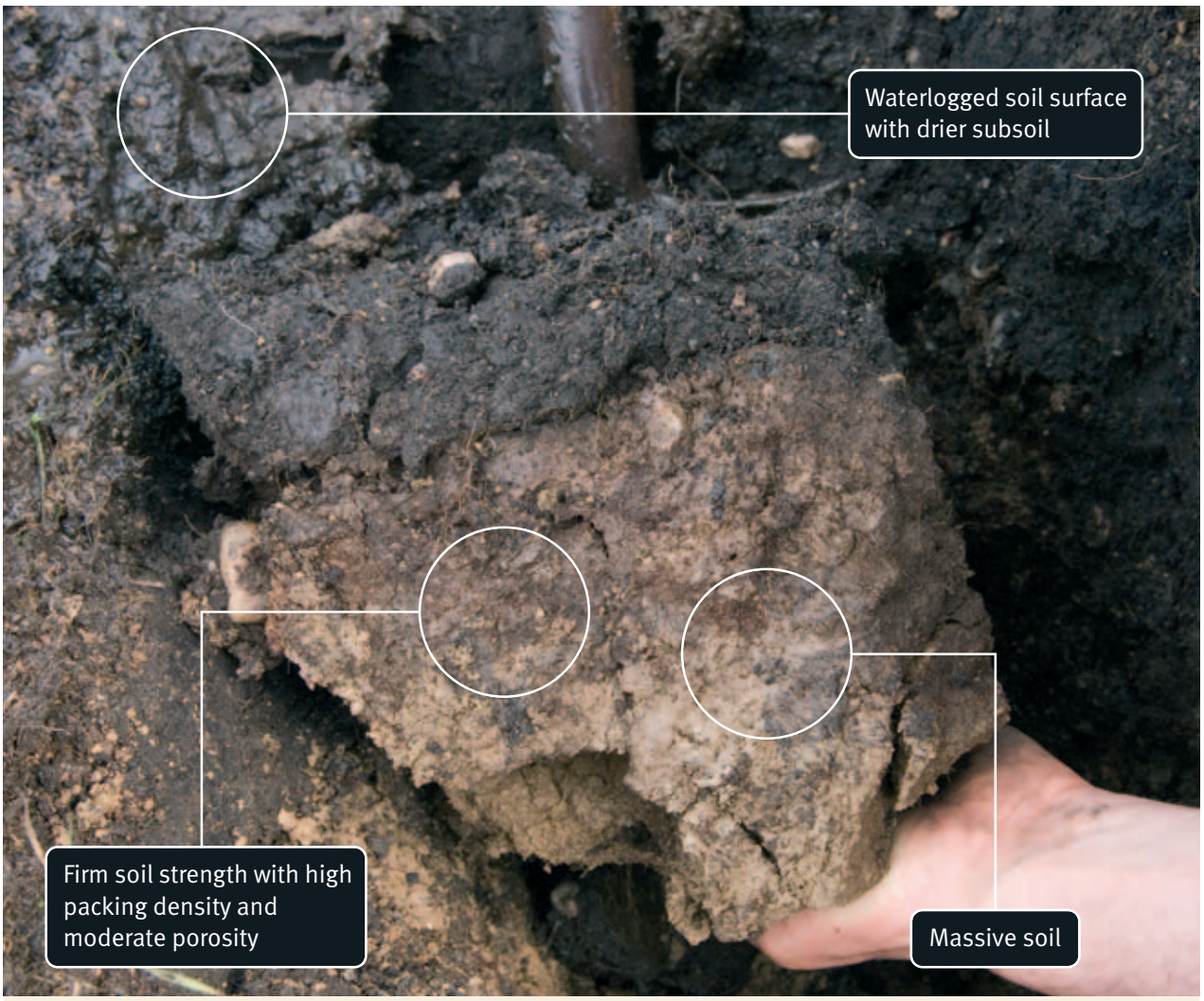
upland peat / good structure



Sandy peat over sandy loam

Sandy loam subsoil with thin naturally occuring ironpan. The ironpan restricts water movement causing waterlogging. Subsoiling can improve drainage by disrupting the ironpan.

upland peat / poor structure



Peat over sandy loam

Waterlogged most of the time due to high groundwater table. Stock and traffic have compacted the subsoil.