

Erosion

PROTECTING ORCHARD SOIL BEFORE IT MOVES

Soil erosion is something that often starts slowly. At first, it may only look like a bit of soil movement after heavy rain. Then small channels start forming. Over time, valuable topsoil is lost and water begins to cut its own path through the orchard.

For plum farmers, this matters because good soil supports strong roots, better water movement and long-term orchard health.

Two types of erosion to watch for:

Sheet erosion is the gradual loss of soil over a broad area. It is often difficult to see at first, but it slowly removes valuable topsoil. In orchards, it is more likely where soil is bare, compacted, exposed to heavy rain, or left without enough surface cover.

Look for: Light soil movement, exposed roots, crusting, sediment build-up, uneven soil levels between rows.

Gully erosion is more visible. It happens when run-off concentrates and cuts channels through the soil. Once a channel forms, water will often keep following the same path, making the damage worse after each heavy rainfall event.

Look for: Deep channels, broken contours, exposed subsoil, washed-out tracks, fast-moving water paths.

What causes erosion?

Some erosion happens naturally. Rain, wind, slopes and flooding can all move soil. Heavy rain loosens the soil. Wind can blow away exposed sandy soil. Sloped blocks allow water to move faster.

But farming practices can make the problem worse. Overgrazing, too much soil disturbance, poor irrigation practices, removing vegetation and poor land management can all leave soil exposed. Once the soil is bare, it is much easier for wind and water to move it.

A simple orchard check after rain

After heavy rain, walk through the orchard and look for:

- ☐ bare patches
- ☐ soil collecting at the bottom of a block
- ☐ small channels forming
- ☐ water running down the slope
- ☐ damaged or overflowing contours
- ☐ exposed roots
- ☐ areas where animals have grazed too heavily

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What plum farmers can do?

- 1. Keep the soil covered**
Bare soil is always at higher risk. Leaving plant material on the soil surface helps soften the impact of heavy raindrops and protects the topsoil. Cover crops such as clover, vetch or rye can also help protect the soil between seasons. This is especially useful in lighter, sandy soils.
- 2. Work across the slope**
Where possible, ripping, discing and planting should be done across the slope instead of down the slope. This helps slow water down and reduces the chance of run-off cutting channels through the orchard.
- 3. Use proper contours**
Well-designed contour banks help guide stormwater safely through the orchard. These should be measured and planned properly. Poorly placed contours can cause more damage, so it is best to get advice from someone with agricultural engineering experience.
- 4. Stabilise existing gullies early**
Small gullies are easier to manage than large ones. Where channels have already formed, logs, brushwood or stones can be packed across the contour to slow the water down and trap sediment. The aim is simple: reduce the speed of the water before it removes more soil.
- 5. Use grass barriers**
Vetiver grass can be planted along contour lines to help slow run-off and trap sediment. It acts as a living barrier and can help protect vulnerable areas before the water gains speed.
- 6. Manage grazing carefully**
If animals graze in or around orchard blocks, avoid overgrazing. Bare patches make the soil more vulnerable to both sheet erosion and wind erosion. Keeping some cover on the soil is one of the simplest ways to protect it.

Kind regards,

**The Custom Plum
team**

