The bed/tilled zone
- adequate permeability and drainage
- easy root penetration
- high plant available water capacity
- drill row grooves on surface are useful in harvesting moisture and reducing run-off in dry periods, particularly in hardsetting surface and hydrophobic soils.

The furrow
- wheel compaction and smearing confined to furrows
- convey excess water from beds but are vulnerable to erosion if subsoil is sodic and recommended bed slopes and run lengths are exceeded.
- sow furrows to minimise erosion and provide competition with weeds.

The deeper soil
- generally poor drainage
- commonly sodic and poor root penetration
- low plant available water capacity

Minimal water losses through deep drainage under furrows.