

Roots

Roots generally occur below the ground, where they anchor the plant and extract water and minerals. Most broadleaved plants have a strong central descending tap root and many finely branching lateral or side roots. Grasses and similar plants generally do not have tap and lateral roots, but have a more uniform mass of spreading fibrous roots which spread out through the soil under and around the plant. Basket and climbing asparagus have swollen watery tubers on some of their fibrous roots, but these have no buds and so they cannot grow into new plants if they are left behind in the soil when these plants are controlled. Cat's-claw creeper has fine spreading adventitious roots at the stem nodes above the soil, by which it clings to trees and other supports.

The shoots of plants only grow from stem buds, which normally only occur on stems. Because roots have no buds they usually cannot grow new stems so cannot grow into new plants. It is normally safe to leave lower tap roots, lateral roots, fibrous roots and the watery root tubers of asparagus vines in the soil – they will not regrow into new plants. Exceptions to this general rule occur with a few woody plants (including small-leaved privet and poplars) which can develop stem buds on wounded woody lateral roots near the soil surface and sometimes sucker and regrow from these roots after control. The swollen woody starchy root tubers of cat's-claw creeper also develop buds after destruction of the shoots and regenerate from them, so these need to be removed or killed with herbicide.

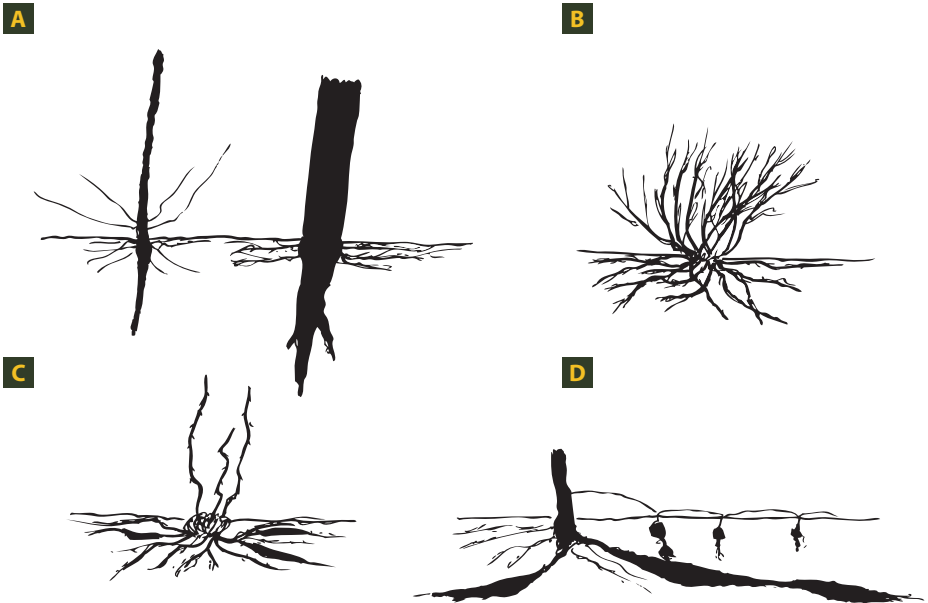


Illustration 1. Types of roots. **A** – tap roots of herbs and trees, **B** – fibrous roots of grasses, **C** – watery root tubers of asparagus vines, **D** – woody root tubers of cat's-claw creeper