



# Amending Planting Holes in the Landscape

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## What are soil amendments?

Amendments are products added to soil to improve conditions for growing. Some amendments are added to improve soil tilth, but they can also be used to correct soil conditions such as alkalinity.

## Should I Amend Tree/Shrub Planting Holes?

**No.** Ideally, a newly planted tree will quickly spread its roots into the surrounding soil. This is the desired outcome of plant installation. Amendments can interfere with this process. It's usually a bad idea to amend the soil for a single planting hole, whether it be a tree or shrub. Amendments can create either of two problems:

### Oasis Effect

Plant roots proliferate where soil conditions are best. Amended planting holes can create a highly enriched, favorable environment in the planting hole that encourages root circling. Circling roots will eventually lead to serious plant problems. Organic matter such as compost will cause this "oasis" effect. This is a subtle effect that takes time to develop.

### Moisture and Stress Issues

Some amendments can affect how water is held in the planting hole, or can add stressors such as salts. Potting mixes, manure, compost, soil conditioners, or peat moss can all affect a planting hole's water holding capacity or soil chemistry. Any changes to the soil texture relative to the native soil can also affect moisture conditions. Planting holes that have been heavily amended may show symptoms associated with overwatering or salt damage: root rots, wilting, lack of new growth, leaf disorders or even death.

## What about Amending Other Areas?

It is perfectly fine — and usually good — to amend an *entire* landscape bed or area based on a soil test or experienced judgement. Just do not amend *individual* planting holes.

## Can I Use Fertilizers?

Most woody species do not respond to fertilizer application in their first year. In some cases the fertilizer can add additional stress to the roots. If fertilizer is desired, apply after the first year under the mulch using a slow-release type fertilizer.

## For More Information

This fact sheet from Purdue Extension details the proper steps in planting a tree:  
<https://www.extension.purdue.edu/extmedia/FNR/FNR-433-W.pdf>