



## SOIL AMENDMENTS

MATERIAL	THICKNESS	ADVANTAGES	DISADVANTAGES	COMMENTS
Compost	1-3 inches	Good feeding mulch; partially decomposed compost will decompose quickly into humus.	Must have had sufficient heating period to kill weed seeds, bacteria, and/or diseases.	Plan and start ahead so compost will be ready when you need it.
Grass Clippings	1-2 inches	Improves soil by adding organic matter. Readily available almost everywhere.	Absorbent, may carry weed seeds. Wet grass may pack down and form a mat.	May be mixed with other materials such as shredded leaves to prevent packing down; dry for a few days after cutting, <u>DO NOT use clippings from lawns treated with herbicides.</u> Weed & Feed is a commonly used herbicide. Wait three mowing's before using the clippings.
Leaves	2-3 inches	Readily available to most people. Contains many trace minerals. Best food for earthworms.	May become soggy and packed down, making it difficult for water to penetrate into soil.	Chipping or mixing with other materials will prevent packing down, matting; best to compost before using or may inhibit seed germination.
Pine needles	3-4 inches	Light, usually free of weed seeds. Absorbs little or no moisture. Can be reused. Do not pack down.	Decompose very slowly.	Add extra nitrogen fertilizer and shred for faster decomposition. Pine needles do not make your soil acidic.

## C130 - Soil Amendments

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Coconut coir	1 inch	Reuses coconut fiber. Holds water well.	May be expensive due to being shipped from Asia and Central America.	No nutrients. May help attract worms. Good to add to sandy soils.
Straw	6-8 inches	Readily available in some areas.	Can be difficult to handle. Can be a fire hazard.	Chop to make more attractive and easier to handle. Add extra nitrogen to aid decomposition unless straw is weathered or aged outdoors.
Bagged Steer Manure		Very low grade fertilizer.	Can be high in salts. Cost may be a problem in large quantities.	Nutrient-holding ability good.
Sawdust	2-3 inches	Readily available from lumberyards or workshops.	Takes very long to decompose unless weathered or aged outdoors first. Water penetration is only fair. May encourage crown rot in some plants by holding moisture against stem.	Always add extra nitrogen to speed decomposition. Hardwood sawdust rots faster than pine or cedar, especially if weathered or aged outdoors first. Best used in the fall.
Vermiculite	Normally mixed into the soil	High air and water holding capacity for long periods of time. Light, sterile, neutral pH provides good aeration.	Can be costly to add to heavy soil.	Contains high percentage of magnesium and potassium necessary for good root growth.
Perlite	Normally mixed into the soil	Light, sterile and causes good aeration.	Floats to top of seedbed when watered.	Volcanic glass; does not absorb water but will hold water in microscopic cracks. Does not hold nutrients. Good in seed starting mix for seed germination.

**Peat moss is no longer recommended as a soil amendment:** On her website, WSU professor, Dr. Linda Chalker-Scott states: “Unfortunately, there is no economically realistic, environmentally friendly way to harvest peat moss.” She goes on to state, “While the efforts to restore degraded peatlands are admirable, it is more environmentally and economically sound to reduce luxury use of peat and promote viable alternatives.”

For this reason, we no longer recommend peat moss as a soil additive in the garden. There are many other products listed here, which can substitute for peat moss.

<https://puyallup.wsu.edu/wp-content/uploads/sites/403/2015/03/horticultural-peat.pdf>

Revised October 2016 by Laren Sunde