



## Mulching (CPS 484)

Part of Fibershed's Carbon Farming Education program, learn more online at: [fibershed.org/carbon-farming](http://fibershed.org/carbon-farming)



Using wood chips to mulch newly planted trees at PT Ranch  
(Photo by Paige Green)



### Benefits of Mulching

- ▶ Retaining soil moisture and improving irrigation efficiency
- ▶ Improved plant productivity and health
- ▶ Preventing weeds
- ▶ Increasing soil organic matter and soil carbon sequestration as mulch breaks down over time
- ▶ Covering bare soil and preventing erosion
- ▶ Moderating soil temperature



### Materials for Mulching

Many high carbon organic materials can be used as a mulch. These are some of the most common:

- |              |                         |
|--------------|-------------------------|
| ▶ Wood chips | ▶ Dried leaves          |
| ▶ Straw      | ▶ Cardboard             |
| ▶ Wool       | ▶ Pine needles (acidic) |



### Applying Mulch

When mulching trees and perennials, wood chips are a great mulch and can encourage fungal-dominated soils. Use 2-3 inches of mulch around the base of trees when planting them. Ideally use hardwood chips (oak, maple, fruit trees etc) when mulching hardwoods and softwood chips (conifers) when mulching softwood trees.

Plants that prefer acidic soils (such as blueberries, or anything in the Ericaceae family) may benefit from more acidic mulches such as pine needles or softwood chips. Avoid wood chips from allelopathic trees such as black walnut or eucalyptus as they exude chemicals that can be harmful to certain plant species.

**NOTE:** Keep mulch 3-6 inches away from plant stems and root crowns. Do not pile mulch up against the trunks of trees, as it can rot the trunks and cause disease. Always make sure you can see the root flare of a tree.

Straw can be used as a mulch around annual crops. Be careful not to use hay, as it often contains seeds that will sprout. Some straw contains seeds so you may want to let it sit for a season and sprout before using it on crops.

*"Agricultural land management practices can measurably increase rates of carbon sequestration, resulting in enhanced soil quality, soil water holding capacity, increased soil carbon and forage production."*

– Ryals and Silver 2013



*Mulching pathways with straw in the indigo garden at the Fibershed Learning Center (Photo by Paige Green)*



### Complementary Practices

- ▶ Alley cropping (CPS 311)
- ▶ Tree/Shrub Establishment (Code 612)
- ▶ Riparian restoration
- ▶ Windbreak/Shelterbelt Establishment (CPS380)
- ▶ Critical Area Planting (CPS 342)



### Sourcing Mulch

- ▶ Use what is available!
- ▶ Tag wool makes a great mulch and can be a source nitrogen for the soil.
- ▶ Most nurseries and landscape supply stores have wood chips available.
- ▶ Chip Drop ([getchipdrop.com](http://getchipdrop.com)) is a free service where tree care companies deliver wood chips to your address and can be a great source of free wood chips. Unfortunately you don't have control of what tree species are delivered, what volume of chips you'll get, and the quality of the wood chips can vary.



*Tag wool used as a mulch to cover bare soil and prevent erosion on this slope at Ferndale Farms*



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