Woodchips for Site Preparation

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The basics: The woodchips created from tree pruning and takedowns are excellent site-clearing material. These chips are rough-cut and may include all parts of the tree except roots. Pile them 12" deep or more over the intended removal area. (Depth is key! This is not the same as mulching with typical bark mulch.)

Woodchips are not the same as bark mulch or other forms of landscape mulch. Bark mulch decays quickly and uniformly compared to woodchips. Bark mulch tends to repel moisture. Deep bark mulch (over 4") is likely to create dry zones under the soil surface.

Woodchips, on the other hand, decompose more slowly. Most of the chips in a typical pile are wood—with comparatively little bark. Wood is "hydrophilic," attracting and holding moisture. Water infiltration and gas exchange are unimpeded.

Woodchips are best used on small to medium-sized sites. Their use is labor intensive.

Woodchips are not an herbicide! They create conditions conducive to removing old land covers but do not directly kill any plants. Chips suppress young seedlings and herbaceous plants, partly by robbing them of light and air. They also create a small nitrogen deficit in the top inch of soil, negatively affecting freshly germinated seeds.

Woodchip effectiveness is directly related to the depth of the chips and the length of time they are allowed to rest over the intended clearing. For larger, well-established plants with dense root mats, such as mugwort or lily of the valley, chips weaken the plants. More importantly, they improve soil tilth and make it possible to lift the root systems with shovels, pitchforks, or by hand.

Woodchip smothering can begin at any time of year.

Getting ready: Before placing the chips, mow or scalp the intended area as low to the ground as possible. Rake out the cuttings, especially if the cuttings have seeds. (Or use a bagger on the mower.) Do not mix the chips into the soil.

Acquiring chips: Chips are usually free of charge, though there may be a delivery fee. See the website GetChipDrop.com for important information about woodchips.

Important! Only take woodchips fresh from a removal. Don't take chips that have been stockpiled.

If you have an arborist, ask them about woodchip delivery when they are working in your area. (Or keep the chips from their tree work on your property.) Ask your town's Department of Public Works if you can have chips after they or their contractors do tree work.

Sign up online for free chip delivery with https://getchipdrop.com/login/. Supplies are not guaranteed, but it is worth listing your request.

Removing woodchips: When the scheduled seeding time arrives, after one year or more under the chip cover, the remaining chips should be removed. (They make great edges and pathways. Also, they can be composted.)

Shrubs or trees can be planted into a chip-smothered area if there is a circle (18" – 36") cleared around the stems and trunks. Never place chips against the trunks or stems.

Extra insurance: After uncovering the smothered area, allow it to rest for two to three months during the growing season. If possible, place a thin layer of chopped straw (not hay) over the newly uncovered area. Water the area. Seeds of unwanted plants will germinate, reducing the embedded seed bank. Remove freshly germinated plants by gently hand-weeding or raking them. Minimize turning of soil.

Important notes about pathogens: Destructive jumping worms are well-established in southern New England. While the worms do not live on or in trees, the eggs can travel with soil. According to researcher Annise Dobson, Ph.D., Yale School of Forestry and Environmental Studies, try to use chips directly from a take-down. Don't accept chips that have been stockpiled on the ground. If the chips were stockpiled, allow the pile to compost at 105 degrees or higher for three days, turn it, and repeat until the entire pile has had heat exposure.

Get the latest on jumping worm solutions. Visit www.ct.gov/CAES and use the search bar to find updates. Visit the JWorm Working Group website: https://www.nyisri.org/research/jworm-2/

Also see this article: *Do Wood Chips Spread Pathogens?*
https://s3.wp.wsu.edu/uploads/sites/403/2015/03/wood-chip-pathogens.pdf

Smothering with cardboard under woodchips: Many people use plain brown cardboard under woodchips, compost, straw, or leaves. This has benefits, but also some notable drawbacks.

Advantages: The cardboard layer deprives unwanted plants of light and hinders the progress of woody plants. Cardboard is lighter than woodchips, and therefore often easier to carry to a site and apply. *Cardboard reduces the necessary chip quantity and thus saves labor.*

Disadvantages: Cardboard has several drawbacks. It temporarily deprives the underlying soil of moisture and air exchange. That affects the roots of desirable trees and shrubs in the area. (Keep in mind that tree and shrub roots often extend horizontally well beyond their canopies.)

Second, cardboard products are not uniform. Some are treated with chemicals; some incorporate non-paper materials. If the cardboard has tape or staples, these won't decompose. (Hint: Before applying the cardboard, leave it in the rain to loosen the tape. It is easier to remove.)

Under certain circumstances, cardboard can harbor pests such as termites. Consider this if working near buildings. Never place cardboard directly against a building
Ram board is another option. This 100% recycled cardboard is used to protect floors during painting and construction. It is sold at building and paint supply stores. Ram board is easy and quick to apply; it can be a great labor-saver. However, it is still cardboard. See notes above.

Topsoil/compost mix over cardboard: Some people create "instant" planting beds by placing cardboard on closely mown weeds or grass, then covering the cardboard with 6"-8" of a topsoil/compost mixture. Small plants are planted directly into the topdressing. The cardboard disintegrates within 6-12 months, while the plant roots grow downward. This is likely to work best with small herbaceous plants such as strawberries, creepers from the mint family, and other groundcovers. Keep in mind the drawbacks to cardboard, noted above.

Woodchip references:

- Using Arborist Wood Chips as Landscape Mulch, Linda Chalker-Scott, Washington State University Extension Home Garden Series FS160E
- The Woodchip Handbook by Ben Raskin, 2021, Chelsea Green. Excellent book that covers all aspects of woodchip usage, not only weed reduction.
- Chalker-Scott, L. 2007. Impact of Mulches on Landscape Plants and the Environment A review. J.Environ. Hort. 25(4) 239-249.
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- Do Wood Chips Spread Pathogens? https://s3.wp.wsu.edu/uploads/sites/403/2015/03/wood-chip-pathogens.pdf
- Downer, AJ., and B.A Faber. 2019. Mulches for Landscapes, UCANR publication #867
- www.GardenProfessors.com/why-fresh-is-best-when-it-comes-to-mulch
- Webinar with Linda Chalker Scott: https://www.youtube.com/watch?v=Ba1KXft_bEA