

# Responsible Wood Waste Management



**G**one are the days of cheap landfill space. Many urban landfills will not accept greenwaste or charge large tipping fees for the privilege of disposal. Fortunately, "waste" is probably a misnomer; tree care by-products should be considered assets.

Clean chipped wood and leaves have many uses. The first and most obvious is as a mulch. Chippings can be spread to a depth of 6 to 12 inches; they will compress and form a water-permeable mat.

## **MULCHING MADE SIMPLE**

***Mulches have both short-term and long term functions:*** short-term, mulches will moderate soil temperatures, slow evaporation, decrease runoff, prevent salinity buildup in the rootzone. Long-term, woody mulches prevent weeds, add mineral nutrients to soil, help promote mycorrhizae formation, decrease compaction, change soil texture, increase water holding capacity, prevent root disease, promote increased rooting, and gradually improves soil chemical, physical and biological qualities.

***In order to benefit trees, mulches should be placed over soil areas where the majority of roots form—generally where leaves naturally fall.*** One of the biggest barriers to using mulch is that there is often no place to put it in many landscapes. Counseling clients to add mulch under shrubs, and/or to remove some plants or turfgrass to make mulched areas will improve the health, longevity and function of shade trees in landscapes. Converting non-mulched to mulched space takes planning and careful implementation, but in the long run trees benefit and it gives a place to put tree trimmings created on-site.

Freshly chipped tree trimmings can be used immediately—they don't require composting to be used as mulch around trees or shrubs. As long as the mulch is not mixed into the soil, it will not take mineral nutrients from underlying roots. Even woody mulches will not deplete nitrogen from underlying soils.

## **FRESH THINKING**

Fresh mulches made from Eucalyptus trees do not pose harm to other landscape plants. They are safe for most landscape mulching applications. ***Tree chip mulches should not be moved across county lines because there are many pests of trees that could be moved from one county to another.***

Whether or not to charge will depend on what your local market will bear. Companies who charge generally price clean wood chips at \$15-20 per cubic yard; delivery charges vary from none to \$25. However, some companies are happy to deliver wood chips to eager customers who are near the work site.

How do you find clients for this service? With today's technology, it is easy to add wood chip delivery to your web site. Your customers can contact you by phone or email. Social networking sites such as Facebook are also a way to connect with potential clients (both for your primary arboricultural services and wood chip delivery). Online classifieds such as Craigslist also can generate leads.

The best use of tree trimming chips is under the trees that they were trimmed from. This will take client education so that consumers can understand the value of their own tree chips.

## **BIOMASS AND BEYOND**

Are there biomass energy plants in your area? These plants use organic waste to generate energy instead of coal, gas or dams. It is considered ecologically friendly and currently is used more than solar or wind power.



The best use of mulch is onsite where a tree pruning job occurs.  
Photo Courtesy: HortScience, Inc.

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**Biomass as a fuel type is biological material that is “recently alive.”** Burning biomass is considered CO<sub>2</sub>-neutral because when it is burned, it only releases the quantity of CO<sub>2</sub> that the plant absorbed during growth. Although these plants have high standards for uniformity and cleanliness, if one is in your area (see the listing below), it is definitely worth researching.

Speaking of heat, selling firewood is a popular way to use up larger tree pieces. **Since moving firewood is now so strongly discouraged, providing it for local clients can be an excellent source of additional income.** Firewood that is split and tarped under clear plastic will have fewer bark beetles and the chance of moving exotic pests is reduced.

Even in warmer climates, many people enjoy the ambience of a fire in the winter. If you live in an area that has campgrounds, they are often eager consumers of local wood so that they can resell it to campers.

**Commercial composting companies also use woodchips in their operations.** Some have tub grinders, which further reduce the chips into smaller-sized particles that decompose more rapidly, producing saleable compost in a matter of a few months.

Wood sequesters carbon, but lets it back into the atmosphere when it is burned or decomposes. One way to reduce carbon almost permanently is to use the wood for an item that will be used indefinitely. Think furniture, picture frames, decorative artwork and even pens.

## **WOODWORKERS WANTED**

Starting small, woodworkers seek unusual urban tree species to create such items as pens and picture frames. Handcrafted pens sell for anywhere from \$10 to \$100, as do picture frames. Contact your local woodworkers club to get started on your new source of income (see listing of woodworking clubs below).

**Moving up the scale is selling large tree pieces to be milled into lumber that can be used for fine furniture.** Special trees that must be removed because of hazard can be memorialized by milling the lumber and making furniture, sculpture or other products that have meaning to the tree owner.

Urban trees offer a source to hardwoods more valuable than traditional woods such as black walnut or oak. Black acacia, red gum eucalyptus, elm and many others make fine dimensional lumber when milled and dried correctly.

If you work with large tree removals, you can either contact a local small mill or consider renting or purchasing a small saw mill on your own. “Saw logs” or logs saved for milling, should be painted on their cut ends to slow drying, bark left on, and cured for up to a year before milling. Wood can be slowly dried outdoors or in a shed or barn.

Freshly cut boards should be “stickered” so that drying is even and heavy weights placed on top to prevent warping. For faster results, a dehumidification kiln can be used to bring wood down to desired moisture contents, generally under 10 percent for most species.

Arborists have access to some of the most exotic urban hardwoods, many not available from any other source. **Properly cut and handled a valuable saw log can return thousands of dollars in wood sales.**

Sustainability is a huge issue in today's culture. Recycling the by-products from a tree care company lends itself to this model, and can provide profits as well as environmental benefits. 🌿

## **Further Reading/Links:**

List of Biomass Energy Plants

<http://biomassmagazine.com/plants/listplants/biomass/US/page:1/sort:state/direction:asc>

Woodworking Clubs

<http://www.finewoodworking.com/how-to/article/woodworking-clubs-directory.aspx>

## CUSTOM WOOD PRODUCTS

### HAND CRAFTED FURNITURE RECYCLED FROM STREET TREES

In an effort to recycle green waste from street trees they are hand crafted into useable products revealing the trees lasting beauty. A variety of species are used to create each unique piece.



A. Frame/Cork Board (26" x 20") \$100  
B. Jewelry Box (8" x 10" x 3.5") \$40  
C. Cutting Board (22" x 16" x 1.75") \$85  
D. 5' Long Slab Bench \$350

Urban trees lend themselves to many beautiful uses, and can also provide additional revenue. Photo courtesy: West Coast Arborists