

Fire Supplement (1991)

Aftermath of the Fire

Tree Tips came off the press two days before the tragic fire that devastated the East Bay Hills. We held off on distribution to prepare this supplement. Over 50 of our clients lost their homes and many others sustained damage to their trees and shrubs. To all of you who suffered from this disaster, we send out heartfelt sympathy. We hope that, as we begin to come through the grieving process, this supplement will be of help to those coping with the aftermath of the fire. This information will be equally valuable to those who want to make changes in the design and care of their landscape to prevent future fires. Please share it with your friends.

Why Did This Happen?

Obviously there are many reasons, but a major one is the artificial ecology of the hills. Before European settlers brought their seed-bearing cattle and foreign plants to the East Bay, the hills were green all summer long. Native perennial grasses were subsequently crowded out by invasive annuals that die out in the summer, leaving the hills a more fire-prone golden brown. Later, the oak-dotted grasslands, which kept brush fires low, were densely planted with trees and shrubs never meant for this area. Blue Gum Eucalyptus (see the next issue of Tree Tips) creates large amounts of debris and seedlings. Many conifers, especially Monterey Pine (see this issue), have high terpene and resin contents. Both create conditions conducive to fire.

In the wake of the fire, we need to plan for more open space in the hills and replant them with those native and other climate-adapted plants that are both fire-retardant and drought-resistant. We also need to promote the gradual restoration of the native ecology in non-burned areas of the hills. Many of our suggestions can be followed by homeowners in non-burned areas as preventative measures. If we return to "business of usual," we are courting disaster.

Preventing Mudslides and Erosion

Protect and reseed ravaged slopes immediately to prevent mudslides and loss of topsoil. We strongly urge you to reseed with fast-sprouting native perennials, such as Berkeley blue wild rye grass - they germinate easily in ash - rather than annual grasses that will only recreate a fire hazard. Seed with 20-40 lbs. seed per acre.

It is important to cover scorched slopes to protect them from washing away in rain. Use no more than 1" of straw mulch on seeded areas and hold it down with a well-anchored jute net or stakes. Divert run-off from steep burnt areas with hay bales, gravel berms, or diversion trenches. We highly recommend that you get help from an expert.

Fire and Hazardous Trees

Many of the fire-damaged trees are now dangerous (or may become dangerous, as wood-rotting fungi and dark beetles colonize the wounds) and should be removed. These include trees where fire has burned though or more of the circumference of the bark to the wood beneath, as well as trees where merely removing charred branches will create a dangerous imbalance. If you are doing large-scale removal, it may be less expensive to simultaneously remove intact but hazardous species such as Blue Gum Eucalyptus, Monterey Pine, of drought- and frost-damaged trees.

However, it makes more sense to remove trees gradually if they are on a steep and charred slope, since every living root is needed to hold the soil in place. Also, many of the still-living trees we have examined have not been damaged enough to require removal. Don't assume that "dead" trees are indeed dead: trees with totally brown leaves may show new life next spring. This is especially true of plants which are subject to brush fires in their native environments, such as California Oaks, as well as of thick-barked trees, such as Redwoods. If you have Oaks for other fire-resistant natives - or any other trees whose safety of "aliveness" you doubt - consult a competent arborist before you consider removing them.

Saving Living Trees and Shrubs

Unless the rainy season begins in earnest, deeply water fire-exposed plants as soon as possible. Remove any heavy layers of ash from acid-loving plants such as Rhododendrons, Azaleas, and Camillias. Break up any hard crust on or below the surface of the soil (crust could form as deep as 18") to counteract soil compaction and water repellence. Aerate your plants (see suggestions in Monterey Pines article). Do not deeply mulch soils on over-20% slopes now, as this will inhibit seed sprouting (see Preventing Erosion, above). But do use 3-4" of organic mulch on flat areas where you aren't planting grass.

Experts disagree on whether to prune damaged plants now, or wait until next spring or summer. Do remove dead and badly charred branches, but don't be in a hurry to prune. You might consider monitoring branches that have brown leaves, rather than removing them.

Landscaping with Fire in Mind

Plant fire-retardant native and other climate-adapted trees and shrubs in a variety of sizes with ample space between them on the ground level. In addition, make sure that there's plenty of space between them on the ground level. In addition, make sure that there's plenty of space between tree canopies and understory plants to keep fire from traveling up and down between them. Plant sparingly and thin regularly to reduce density of foliage - all plants burn if a fire is hot enough.

Keep a zone of low ground-cover like dwarf Coyote Bush or Cotoneaster, or of materials such as gravel, right around your house. Remove conifers (especially Juniper) and other fire-prone plants and replant them away from walls with fire-resistant ones, like

California Fuchsia, Camellia, and Rhododendron. Or, plant native perennial grasses - they require up to 1/3 the watering of most other grasses. Plant larger trees even further away, minimize conifer use, and don't plant Monterey Pines and Blue Gums. We particularly recommend Live Oaks, native to the hills, which grow considerably faster than you might expect. If you would like an extensive list of both fire-retardant and dangerous plants, based on expert sources and on our careful examination of the burned areas, please call either our Oakland or Berkeley office.

Fire-Preventative Maintenance

All homeowners should start working now to make their yards safer. Remove or thin out dense, flammable brush within a minimum of 30' of your house. Thin and remove dead branches and leaves from remaining brush and consider selective removal - leaving plants spaced at least 10-12' apart. Remove annual grasses and tall weeds. Keep all grasses and groundcovers both low and away from the base of your house (this is true for mulch, too).

Pruning is key in fire prevention. Keep plants clean and thin, especially near your house. Keep foliage well away from your roof. Prune the tops of understory shrubs so that they are well below the lowest branches of your trees. Prune "up" - remove lower branches - but only do this with the guidance of a competent arborist, to prevent the hazard of top-heaviness. This kind of pruning, if done moderately, need not diminish the health and beauty of your trees.

Keep your plants adequately watered. Fire prevention is yet another good reason to mulch and install a drip irrigation system. Investigate the possibility of using "greywater" (water that is recycled from showers and baths) so that you can conserve water.

Relevant Services We Offer

Brende and Lamb offers consultations on saving fire-stressed plants, preventing erosion, fire safety, and relandscaping, as well as insurance valuations. We treat fire-stressed trees and shrubs and remove them when necessary. We do brush clearing, pruning for fire safety, and maintenance of trees and shrubs. We can work out a fire-retardant landscaping plan for you that is drought- and frost-tolerant and includes plants attractive to birds, butterflies, etc. We'll also install, free of charge, seedlings from endangered plants, so that your home can act as an ark in the preservation of biological diversity.

We recognize that the comprehensive changes called for by the fire are an expensive proposition. We have always had, and continue to have, a 3-month, interest-free installment plan for any substantial work we do. Please call us if you need help.