

November 2003, Vincent F. Lazaneo

As soon as the wildfires were out the process of renewal began. Nature will replace burnt native vegetation, but the job of rehabilitating human landscapes is ours. The ashes were barely cold when people began to ask how to treat landscapes damaged by the wildfires. Here are some of the most commonly asked questions.

Q Will trees, shrubs and vines damaged by the fire, recover? Should I prune back or remove burnt plants now?

A Most woody fruit and ornamental plants with scorched or burnt leaves and twigs will produce new growth within a few months. Even trees with burnt bark that look dead may survive and produce new growth if you are patient.

Do not remove any branches or burnt leaves from fire damaged plants at this time. Branches which appear dead may still be alive. Dead foliage may look unsightly, but it helps protect the bark from sunburn damage.

Heat from the sun can kill live tissue beneath the bark on young trees and on evergreen trees, like citrus and avocado. To protect trees from sunburn injury, paint whitewash on the south side of the trunk and on the top side of horizontal branches. You can buy whitewash at some garden centers or use equal parts of water and flat white interior latex paint.

It is difficult to tell whether the woody parts of a plant are alive or dead immediately after a fire. New shoots and foliage will grow from damaged branches or the trunk of a woody plant, if dormant buds and the cambium, a layer of cells just beneath the bark are still alive. The amount of damage to these tissues depends on the intensity of heat from a fire and the thickness of a plant's bark.

The full extent of damage to woody plants may not be apparent until next spring or early summer. Wait until new growth appears on branches or the trunk; then carefully remove dead wood.

If all of the cambium tissue is killed around a trunk or a branch, the portion of the plant above the damaged area will die, but new growth may develop below the damaged area. Shoots that arise from the root stock of a grafted plant will not bear the same kind of fruit as the tree previously did unless a strong new shoot is grafted with a desired variety. Some native plants and a few introduced species such as eucalyptus have a special tissue just beneath the soil at the base of the trunk which can produce new growth when the top of the plant is killed.

Q Should I water and fertilize plants damaged by fire to stimulate new growth?

A Trees, shrubs and vines that have lost their foliage due to fire, do not need as much water as healthy trees. Wait until the soil is somewhat dry before you water a fire damaged plant, then deeply irrigate its root zone. Irrigating defoliated plants too often can cause root rot. To check soil moisture use a shovel or trowel and dig one or more holes six to twelve inches deep at the outer edge of the plant's foliage.

Immediately fertilizing plants damaged by fire can injure the roots and cause more harm. Wait until new growth appears, then lightly apply a fertilizer containing nitrogen. The first number on a fertilizer package tells you the per cent nitrogen in the product. Damaged plants should not be fertilized with manures since they contain a high concentration of salts that can injure roots.

Q Can I use ash from the fire to fertilize my plants?

A Wood ash is not a desirable fertilizer for our area. It contains a small amount of plant nutrients including potassium and phosphorous, but it also has a high concentration of chemical salts that are water soluble and can harm plant roots if a large quantity is used. Wood ashes are also very alkaline with a pH of 10 to 12 and are not good for soils that are already alkaline. A thin layer of ash on the soil will not harm most plants. Do not place extra ash around plants and rake away any thick deposits if possible.

Q Where can I find information on landscaping for fire protection?

A I suggest you visit the fire safe demonstration garden created after the 1996 Harmony Grove fire. It is located next to the Elfin Forest fire station on Elfin Forest Road between Elfin Forest Lane and Fortuna del Este. The garden is set up for self-guided tours and is open daily.

You should also visit the Water Conservation Garden located on the campus of Cuyamaca College at 2950 Jamacha Road in El Cajon. It has an extensive collection of ornamental plants which are adapted to our area. A County of San Diego Pamphlet "Fire, Defensible Space and You", published in 1998 can be found on the internet at www.sdcounty.ca.gov/dplu/index.html When you reach the home page, click on 'useful links' then click on the publication. The publication includes a list of plants to avoid and a list of acceptable plants for each climate region of the county. It also provides some landscaping tips for fire protection.

Q All of the plants on the hillside by my home burned in the fire. I am worried that heavy rain this winter may cause flooding and soil erosion. Should I scatter grass seed on the hillside to protect my home?

A Sewing annual rye grass or other non-native grass seed on burnt slopes after a fire was a standard practice for many years. This activity was thought to be beneficial, but experience has shown that it is not very effective in preventing soil erosion. Annual grasses will die next summer and may pose a fire hazard if it is not removed.

If burned slopes have previously been covered with native vegetation, new plants will sprout from underground stems and roots. As the rainy season progresses other native plants will grow from seed. Nothing should be done which will interfere with the establishment of native vegetation.

Annual rye grass may be seeded on slopes where native vegetation did not previously grow, but several factors can prevent the grass from growing. Heavy rain can wash grass seed off a hillside before it has a chance to sprout. Hydro seeding, which sprays a mixture of wood fiber and seed on a slope may keep seed in place, but this will not necessarily ensure good establishment.

Rye grass seed must remain moist for about two weeks to obtain good germination. Seed that dries out after it begins to sprout will die. Un-irrigated areas, which rely on rainfall, often do not receive adequate moisture. Even where irrigation is available, it may not be practical to sprinkle seed lightly two or more times a day until it is established. Young grass will grow slowly if the weather is cold and may not prevent erosion on steep slopes and in drainage areas during heavy rain.

Q What can I do to protect my home from run-off and erosion this winter?

A The potential for run-off on slopes during the rainy season can vary greatly from site to site. You should inspect the property surrounding your home and try to determine where water, loose ash and soil are likely to go when it rains. Plan accordingly, and in the worst case, know when to leave your home before a slope fails.

Focus your efforts on protecting your home. You may be able to use sand bags or other methods to divert water that could harm structures. The pamphlet, "Fire, Defensible Space and You," published by the County of San Diego in 1996, suggests some other preventive measures:

- **Plastic sheeting** placed over a slope will divert water. Make sure the water will flow into culverts, brow ditches or other diversions.
- **Straw Mulch**
- **Jute mesh**
- **Wood excelsior matting**
- **Geotextile fabrics**
- **Straw bale dikes**
- **Silt fences**

- **Seed planting of native annuals and perennials.**

All of these methods have their limitations and you should consult with suppliers and experienced professionals before using them.