

# Lamorinda

# OUR HOMES

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Handyman's toolbox tips

... read on Page D4

*Digging Deep with Goddess Gardener, Cynthia Brian*

## Roots



Clipped topiary with blue hydrangeas

Photos Cynthia Brian



Bright impatiens are perfect in fall borders.

### By Cynthia Brian

*"The Land! That is where our roots are. There is the basis of our physical life." ~ Henry Ford*

As a gardener, I spend copious amounts of time thinking about roots. Healthy roots are critical indicators of the overall health and survival of plants and trees.

Why are roots essential?

**Anchorage:** One of the primary functions of roots is to anchor the plant firmly in the soil so that it is not uprooted by wind, water, or other forces of nature.

**Absorption:** Roots absorb water and nutrients essential for growth

and development. The extensive network of roots maximizes the plant's ability to access these resources.

**Storage:** The root system also stores energy in the form of starches and sugars which can be utilized during periods of drought or new growth.

**Transport:** The vascular system extends from the roots to the leaves to the stems facilitating movement of water and nutrients.

**Stabilization:** Roots reduce erosion by binding the soil particles together making the plant strong and stable.

**Microbial Support:** Roots con-

tribute to improving soil structure by promoting microbial activity and organic matter decomposition. Mycorrhizal fungi and nitrogen-fixing bacteria enhance nutrient uptake and protect plants from pathogens.

**Aeration:** Roots create tiny channels in the soil as they grow. These channels allow oxygen to penetrate deeper into the soil, which promotes a healthier ecosystem. Roots also prevent soil compaction which aids in better water infiltration and growth.

**Drought Resistance:** Periods of drought are survivable because of deep root systems and taproots.

Without healthy roots, all plants would struggle to survive.

Human roots are also important.

Recently friends invited my husband and me to a picnic and a private wine tasting at Beringer Brothers in St. Helena. "How fun," I responded. "It will be great to be back in my stomping grounds."

Although we had been friends for years and they knew that I'd grown up in the vineyards, they didn't know the story of my roots. I'll share a snippet of my heritage with you.

... continued on Page D12