

Woodcrest Villa Nature Trail & Arboretum

<http://rhodyman.net/WCV>

January 2026 Newsletter

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Woodcrest Villa Arboretum is Dedicated To Those Recognized with Trees & Benches

Do Trees Hibernate?

As winter settles in and deciduous trees stand bare against the sky, it's easy to assume they are "asleep" in the same way animals hibernate. In reality, trees do not hibernate — but they do enter a carefully regulated state known as

dormancy. During this period, trees are very much alive, quietly managing internal processes that allow them to survive winter and prepare for spring.

Dormancy: Not Sleep, but Survival Mode

Dormancy is a protective state that slows visible growth while keeping essential metabolic activity running at a reduced level. Leaves are shed to prevent water loss and damage from freezing, but inside the tree, cells remain alive and responsive. Sugars, hormones, and enzymes continue to circulate, just more slowly.

Trees enter dormancy in response primarily to shortening day length, not cold temperatures. This is important: an early warm spell in winter won't fully "wake up" a tree if day length hasn't increased enough.

What's Happening Underground?

While branches may look inactive, roots are often still growing — especially in early winter and again in late winter when soil temperatures are above freezing. Root growth generally stops only when soil temperatures fall below about 40°F (4°C).



During winter, roots:

- Absorb and store nutrients
- Maintain mycorrhizal (fungal) partnerships
- Prepare for the growth demands of spring

Buds: Waiting, Not Sleeping

Every deciduous tree carries buds through winter, each protected by overlapping scales coated with resins or waxes. These buds contain next year's leaves, flowers, or shoots — already formed, just miniaturized.

There are several types of buds:

Leaf buds – contain future leaves and stems

Flower buds – contain future flowers

Mixed buds – contain both leaves and flowers

Inside the bud, cells are alive but held in check by chemical signals that prevent premature growth.

What Is the "Wake-Up" Signal?

Bud break in spring depends on two signals working together:

- Chilling requirement—Most temperate trees need a certain number of cold hours before they can respond to warmth. This prevents buds from opening during a mid-winter thaw.
- Increasing day length and warmth—Once chilling requirements are met, rising temperatures and longer days trigger hormonal changes — especially involving auxins and gibberellins — that allow cells to expand and buds to open.

Only when both conditions are satisfied does growth resume.

Quiet Activity All Winter Long

Even in deep dormancy, trees are:

- Slowly converting stored sugar into energy
- Repairing damaged cells
- Managing stored carbohydrates
- Maintaining frost resistance in tissues

Sugars act as a natural antifreeze, lowering the freezing point of cells and protecting membranes from damage.

Why Dormancy Matters

Dormancy is one of the key adaptations that allows trees to survive in temperate climates. Without it, trees would be vulnerable to frost damage, dehydration, and energy depletion long before spring arrived.

So while deciduous trees may look lifeless in winter, they are not asleep — they are patiently waiting, conserving energy, and preparing for the remarkable burst of growth that comes with longer days and warmer temperatures.



Campus Bench



Arboretum or
Trail Bench

Honor & Memory Benches Available

Now, both the original arboretum and the expansion area are filled with honor and memory trees. A new opportunity to honor or remember a loved one is with a bench, either a campus bench or an arboretum/nature trail bench. Each bench includes a plaque where you can place your message. For more information contact Steve Henning at acer103@earthlink.net or call 7116.

IN MEMOR OR HONOR OF SOMEONE

Message Here (up to 55 characters & spaces per line)
...remembrance, dedication, sponsorship, inspiration...

Thanks for Donations

Thanks to those who donated for the Trail Crew to buy supplies for the Nature Trail & Arboretum such as saw blades for trimming, mulch for the trail, and service for the tractor.

Make donations out to:

Tandem Living

with the note:

WCV Nature Trail & Arboretum

Send all donations to:

Bruce Metzler, Treasurer
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