

*Ruth Risdon Storer
Garden—*

*A
Valley-
Wise
Garden*



Ellen Zagory

WHY SHOULD I use mulch?

Mulch protects the soil and improves the appearance of the home garden.

Mulch reduces

- **weeds** by blocking sunlight that weed seeds need to grow
- **water needs** by protecting soil from losing water to evaporation and run-off
- **fertilizer needs** by breaking down and adding its own nutrients to the soil
- **soil compaction** by cushioning the soil below



Mulched home garden

Corinne Robinson

Mulch improves

- **appearance** by covering bare ground and reducing weeds
- **drainage** over time by breaking down and improving soil structure
- **soil health** by adding nutrients to the soil as it breaks down
- **plant health** by improving soil and growing conditions



Arboretum volunteers mulching

What is mulch?

Mulch is a protective covering spread on the ground around plants. It improves the health of your garden.

The Arboretum uses medium, shredded fir bark mulch because it is attractive, durable and natural-looking. Notice this mulch around you in the Valley-Wise Garden.

**How do I
select mulch?**

**How much
mulch do I need?**

**How often
should I mulch?**

Ruth Risdon Storer Garden—A Valley-Wise Garden



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How do I select mulch?

Choose:

- fine or medium-sized mulch
- pieces less than 2" long

Popular kinds of mulches include:

- Shredded bark or wood
- Nut shells
- Pine needles or other tree leaves

How much mulch do I need?

Small plants

2" deep

Large plants, trees

4" deep

Pathways and bare ground

4" deep

If you spread mulch too thinly, you lose its benefits.

How often should I mulch?

Apply mulch at least once a year or as needed to maintain an optimum depth of 2-4".

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ASK DR. RUTH...

HOW CAN valley-wise gardening HELP ME?

How can I save money?

How can I have more free time?

How can I live in a more beautiful, healthy environment?



Ellen Zappery

Valley-Wise Garden



WELCOME TO THE Ruth Risdon Storer Garden—A Valley-Wise Garden



Ruth Risdon Storer

Who was Ruth Risdon Storer?

Dr. Ruth Risdon Storer was Yolo County's first pediatrician and an avid gardener. She shared many of the plants here with the Arboretum and helped to fund this garden. First planted in 1980, this demonstration garden was inspired by Storer's own home garden. Like her garden, it has year-round color, beauty and requires little maintenance.

Arboretum staff test new plants here for use in Valley-Wise gardens. Explore this garden for Arboretum All-Stars—our top recommended plants.



Valley-Wise gardening uses plants and practices suited to Central Valley conditions

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ASK DR. RUTH...

HOW CAN valley-wise gardening HELP ME?

Valley-Wise Gardeners

- choose low-water-use plants and have lower water bills
- spend less on chemical fertilizers and pesticides
- use long-lived plants that don't need regular replacement



Ellen Zappay



Ellen Zappay

Valley-Wise Garden

Valley-Wise Gardeners

- spend less time on garden maintenance
- spend less time replacing plants
- have less lawn to mow



Ellen Zappay

Valley-Wise Gardeners

- provide food and shelter for butterflies and birds to create a healthier ecosystem
- conserve valuable water resources
- cause less chemical pollution
- have colorful gardens that buzz with life



Ellen Zappay



WELCOME TO THE
Ruth Risdon Storer
Garden—
A Valley-Wise
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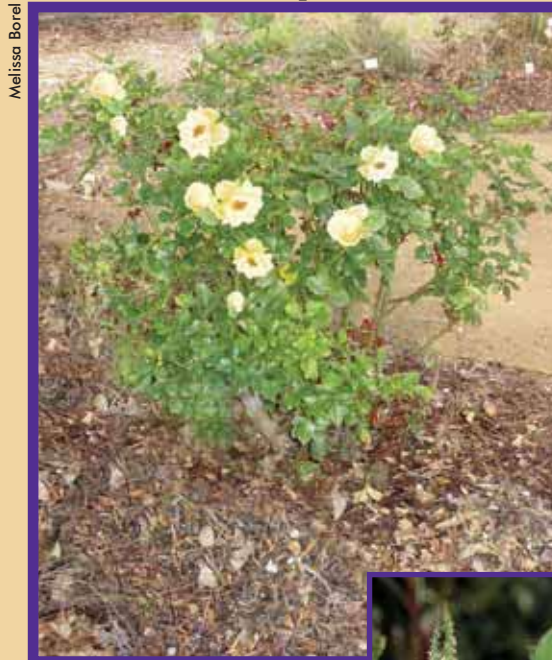
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ARE APHIDS **eating** **your roses?**

Instead of using pesticides, try the “buddy system”.

Without Buddy Plants



Melissa Borel

Rose bush without buddy plants



UC IPM

Aphid-infested rose

By growing buddy, or companion, plants around your roses, you can attract beneficial insects that eat aphids and other pests. . . without using chemicals!

With Buddy Plants



Melissa Borel

Rose bush with buddy plants



Melissa Borel

Healthy, aphid-free rose



We eat aphids!

Buddy, or companion, plants provide food and/or shelter to adult beneficial insects, encouraging them to lay their eggs near roses. Hungry larvae then hatch and help control aphids and other pests by eating them.

Ladybird Beetle



UC IPM

Larva eats aphids, scales and mites.



UC IPM

Adult eats aphids, scales and mites.

Syrphid Fly



UC IPM

Larva eats aphids, thrips and mites.



UC IPM

Adult eats nectar and pollen.

Lacewing



UC IPM

Larva eats aphids and small caterpillars.



UC IPM

Adult eats nectar and pollen.

Ruth Risdon Storer Garden—A Valley-Wise Garden



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Am I high maintenance?

No. I am a **low-maintenance rose** because I am **disease resistant**.

When you buy roses, look on the label to see if they're disease resistant. This will save you time, money and effort in your Valley-Wise garden.



Melissa Borel

Notice the **Class Act** rose in front of you. It is resistant to common fungal diseases and thrives in the Valley-Wise Garden without the use of pesticides.

High Maintenance

- Roses without disease resistance are prone to unsightly fungal diseases
- In order to look their best, these roses may require high levels of care and fungicide applications

Common Fungal Problems in Roses



Rust



Black spot



Powdery mildew

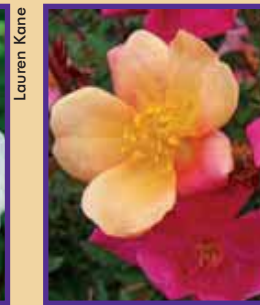
Low Maintenance

- Roses with disease resistance are easier to care for because they are less likely to get fungal diseases
- These roses are beautiful without needing fungicide

Choose Low-Maintenance Roses



Rosa 'Perle d'Or'
Arboretum All-Star



Rosa x odoratus 'Mutabilis'
Arboretum All-Star



Rosa 'Gruss an Aachen'
Arboretum All-Star



Ellen Zagory

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WHY IS THERE A moon garden? IN THE ARBORETUM



WELCOME TO THE
**Carolee Shields
White Flower Garden
and Gazebo**



Carolee Shields (far left), seated behind Judge Shields, hosts one of the first Picnic Day events in the area that eventually became the Arboretum.

Who was Carolee Shields?

Carolee Shields was the wife of Judge Peter J. Shields, an early champion of the founding of UC Davis. She is credited with starting the long-standing campus tradition of Picnic Day by hosting the first event in 1909.

After Judge Shields passed away, Mrs. Shields made sure that a bequest from their estate would create the Shields Oak Grove along with this garden and gazebo.

The formal white flower garden was planted in 1976 at the suggestion of Mrs. Shields' friends, Ruth Risdon Storer and Alyce Jewett.

It continues a three thousand year-old gardening tradition

Historically, white flower gardens were used by aristocrats of ancient India, and later by English socialites, for outdoor parties before air conditioning was invented. In order to escape summer heat, parties were held in the evening. White flowers were ideal because they shine in the light of the moon.

It provides a wonderful destination for Arboretum visitors

This garden and gazebo are a beautiful setting for weddings and receptions. For reservations, call Campus Events and Visitor Services (530) 752-2675.

It provides food sources for night-pollinating insects

In the evening, many of the flowers in this garden have a stronger scent that attracts night-pollinating moths.



White garland ginger (*Hedychium coronarium*) from India is a popular moon garden flower because of its tropical fragrance.



Any white-flowering plant is suitable for a moon garden. Some of these scented favorites are found in this garden.



Clockwise from top: summer daphne (*Daphne x transcaucasica*), southern magnolia (*Magnolia grandiflora*), Argentine rain lily (*Zephyranthes candida*), and calla lily (*Zantedeschia aethiopica*).



The sphinx moth is attracted to white flowers by their sweet fragrance and visibility at night. As the moth feeds on nectar, it pollinates the flowers. *Smerinthus cerisyi* (left), and *Hyles lineata* (right), both in the Sphingidae family.



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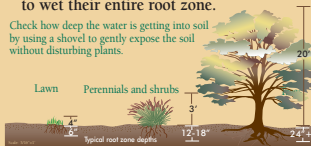
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test YOUR watering wisdom

The Valley-Wise Garden is watered only once every two weeks for seven months of the year (April-October). Winter rains take care of the rest.

Your plants need enough water to wet their entire root zone.

Check how deep the water is getting into soil by using a shovel to gently expose the soil without disturbing plants.



Plants need the most water during the long, hot days of summer. Turn your sprinklers OFF in the winter; rains provide plenty of water.



Valley-Wise Garden

It is best to water deeply and infrequently. Deep watering means wetting a plant's entire root zone.

- The drought-tolerant plants in the Valley-Wise Garden get deep watering once every two weeks
- The water loving plants in the nearby White Flower Garden and Gazebo get deep watering once a week

Make your irrigation system more water-wise by:

- Learning to use your irrigation controller
- Turning off your watering system during the rainy winter season
- Adjusting irrigation heads to avoid watering sidewalks and pathways
- Using water-efficient spray heads that release less water over time
- Using mulch to reduce water loss

New plantings need more water until their roots have started to grow into the surrounding soil. Plant in the fall and let the winter rains water for you.

Even drought-tolerant plants may need daily water if you plant in the spring or summer.

Water during the cool *morning* hours to reduce water loss through evaporation.

NO. The secret to a healthy garden is watering deeply and infrequently.

Deep watering means wetting a plant's entire root zone. Constantly wet soils can kill many plants, so allow soil to dry before you water again.



Did you know?

Most California plants need less water than they need in their native habitats. This is why many plants die in many home gardens.

test YOUR watering wisdom

The Valley-Wise Garden is watered only once every two weeks for seven months of the year (April-October). Winter rains take care of the rest.

How much water do my plants need?

How much should I water in different seasons?

What time of day is best for watering?

Do I need to water everyday?

How often should I water my plants?

How can I make my irrigation system more water-wise?

How much should I water my new plantings?



Valley-Wise Garden



Did you know?

More than 100 million gallons of water are used in California gardens every year, more water than they need. To avoid the water waste and thousands of dollars of plant death in many home gardens

Ruth Risdon Storer Garden—A Valley-Wise Garden



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buddy plants

PROVIDE **food** FOR BENEFICIAL INSECTS

Buddy, or companion, plants like seaside daisy and goldenrod attract adult beneficial insects, adding beauty and function to your garden.



Wayne Roderick seaside daisy
Erigeron 'Wayne Roderick'



California goldenrod
Solidago californica



We eat aphids!

Syrphid fly adults feed on the nectar and pollen of companion plants. Growing these plants in a location close to roses encourages beneficial insects to lay their eggs nearby. Larvae then hatch and can feed on aphids and other rose pest insects.



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buddy plants

PROVIDE **shelter** FOR BENEFICIAL INSECTS

Buddy, or companion, plants like deergrass and yarrow provide shelter for beneficial ladybird beetles.



Emily Greenwood

Mexican Deergrass
Muhlenbergia dubia



Blair Zagory

Common Yarrow and its hybrids
Achillea 'Creamy'



UC IPM

We eat aphids!

Ladybird beetles stay safe by taking cover in these companion plants. Growing these plants in a location close to roses provides the beneficial insects with their favorite foods: rose pests such as aphids, scales, mites, and caterpillars.



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