



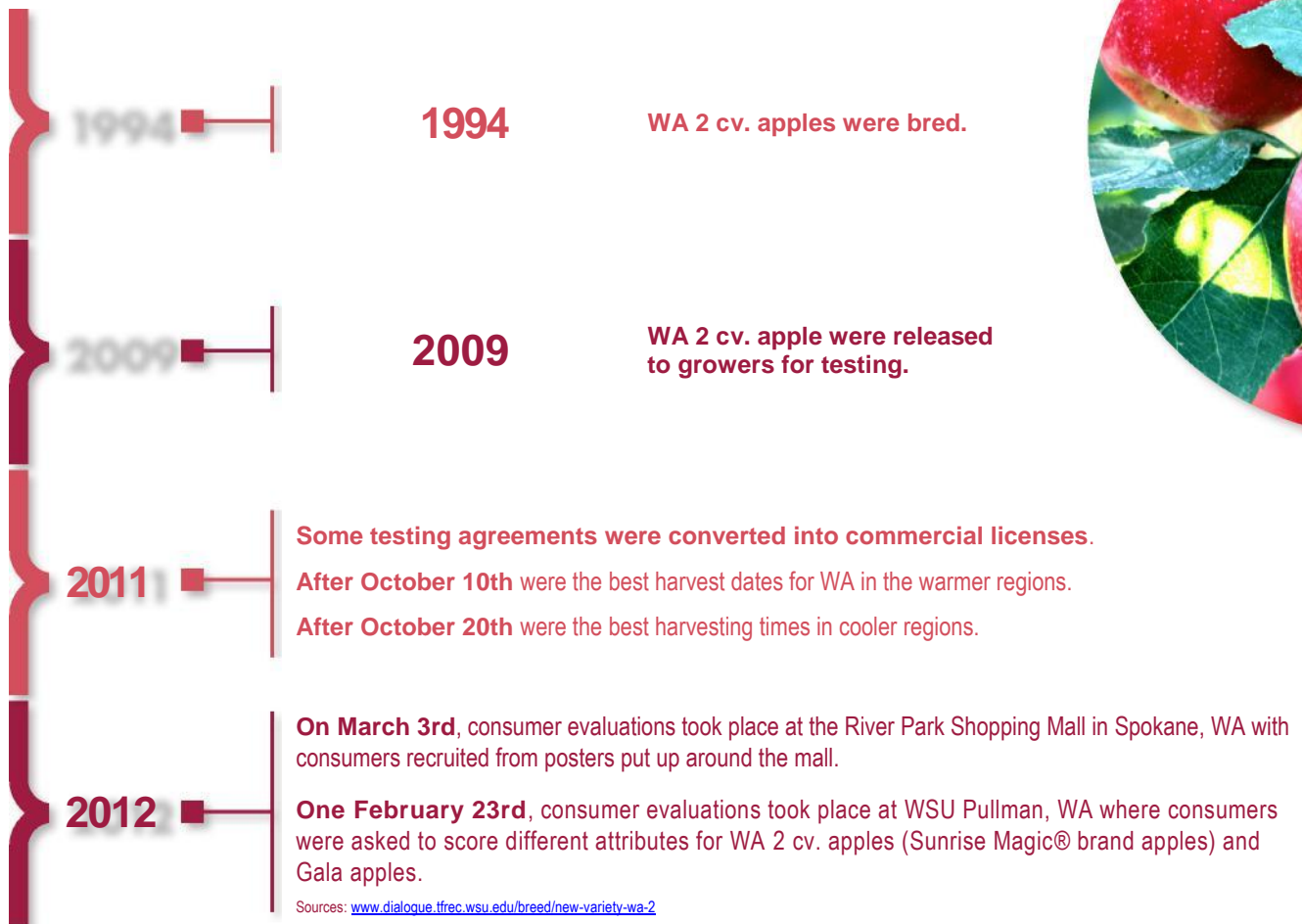
Sunrise Magic® brand apples are a cross between Splendour and Gala apples.

### Fruit Characteristics:

- Late September to early October season
- Medium fruit size, round
- Very attractive
- Bright pinkish red
- Conspicuous lenticels
- Little russet or bitter pit

Sources: WSU CAHNRS - Tom Auvil and Ines Hanrahan (Washington Tree Fruit Research Commission), Kate Evans (Washington State University, Wenatchee)

## Timeline



# Growing Regions

## 1. Okanogan Region

From the terraced riverside orchards of the scenic Okanogan comes much of our late season fruit. Located to the north, it consists of the narrow Methow Valley, its lush orchards hugging the Methow River, and the wider, steep-walled Okanogan Valley. The region's shorter growing days and cool temperatures produce excellent apples of all varieties.



## 2. Lake Chelan Region

Orchards lining the shores of Lake Chelan are steeped in a unique, temperate microclimate. This deep lake cools the hot summer days and warms the air temperature in winter. The Chelan region is known for producing apples of exquisite color, shape and keeping quality demanded for export.

## 3. Wenatchee Region

The heart of Washington apple country is the Wenatchee Valley. Its waterfront orchards embrace the region's rushing rivers, producing crisp, delicious apples in every color and flavor.

## 4. Columbia River Region

Between the Columbia and Snake rivers, lays the broad Columbia Basin. Its rich volcanic soil, fed by the cool waters of the Columbia, nurtures vast acres of apples. Blessed by a long growing season, the basin is noted for producing larger apples and later-maturing varieties.

## 5. Yakima Valley Region

Surrounded by gently rolling mountains, the wide Yakima Valley employs irrigation to create an oasis for apple cultivation. Stretching from the Naches to the Tri-Cities, it is the largest apple producing region in Washington. Noted for its earlier, as well as longer, growing season, the Yakima region produces high quality apples of every variety.

Sources: Washington Apples

# Availability

Sunrise Magic® can be ordered from any NNII nursery:

- C&O Nursery [www.c-onursery.com](http://www.c-onursery.com)
- Van Well Nursery [www.vanwell.net](http://www.vanwell.net)
- Willow Drive Nursery [www.willowdrive.com](http://www.willowdrive.com)
- Cameron Nursery [www.cameronnursery.com](http://www.cameronnursery.com)
- Brandt's Fruit Trees [www.brandtsfruittrees.com](http://www.brandtsfruittrees.com)
- Biringner Nursery [www.biringernursery.com](http://www.biringernursery.com)
- ProTree Nursery [www.protreennursery.com](http://www.protreennursery.com)
- Gold Crown Nursery 509-664-2973

# Rootstock

## Learn More About Sunrise Magic® Brand WA 2 Apples

WA 2 cv. trees on M.9 vigor-level rootstock are compact. They are an easy and inexpensive tree to maintain. In replant sites, or sites with weaker soils, the trees may not grow vigorously enough to fully develop a productive canopy. If Gala or Fuji on M.9 will grow to 11 feet tall in two seasons at a row spacing of 3 feet, WA 2 cv. trees will be more successful when spaced at 2 feet. Extra effort in water management, nitrogen application and removing crop from the central leader to maintain vigor until the canopy is filled will provide significant enhancement to yields. WA 2 cv. trees are easier to thin than Fuji, however, it does tend to produce fruit on 1-year wood which is often small, has russet in the stem bowl and is parrot-beaked. There was little parrot beaked, russeted or undersized fruit in 2011. In 2011, best harvest dates for WA 2 cv. trees in the warmer regions were after October 10; in the cooler regions optimum harvest timing was after October 20. Two picks may suffice for WA 2 cv. trees as they become more mature. However, splitting in the stem bowl is a factor to consider. Cold weather during maturation, prior to harvest or advanced maturity (deep red color) may aggravate WA 2 cv. tree splitting. Two sites had 4 harvest timings in 2011, with the early light picks focused on the southwest side of the trees. WA 2 cv. trees may have a two-week harvest window for long term storage, with very good fruit color.

## Tree Characteristics: Field Days

To receive announcements of upcoming Sunrise Magic® brand WA 2 tree field days and other WSU Extension events, subscribe to the Fruit Matters newsletter or email Tianna DuPont, WSU Fruit Extension Specialist.



**SUBSCRIBE**

<http://treefruit.wsu.edu/newsletter/>



**EMAIL**

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## Cultivation

The following traits have been observed during Phase 3 evaluation:



WA 2 cv. trees have a compact growth habit similar to that of Ambrosia or semi-spur Red Delicious. It is sensitive to replant disorder, and requires fumigation and aggressive strategies to grow the tree, fill the space, and then produce fruit. In virgin ground, WA 2 cv. trees fill the 3 by 10-foot spacing in the third growing season. On weaker, replant ground, WA 2 cv. trees have not adequately filled their space. In these conditions, a 24- to 30-inch in-row spacing might be the best way to fill the canopy volume. Malling 9 rootstocks will grow more fruit more consistently and have better fruit size than semi-dwarf rootstocks.

Fruit sets evenly and in singles, which facilitates annual bloom and fruit set[K1]. Fruit size is a little larger than Gala, peaking on size 80 to 100. WA 2 cv. trees like to set on one-year wood, but this fruit is small and often russeted. In addition, the stem is often misaligned and grows across the fruit core at a 90-degree angle; a phenomenon known as “parrot beak” (Figure 1). Because of these problems, all fruit on

one-year wood should be removed on second-, third- and fourth-leaf trees. Parrot Beak and russet diminish as the trees age. The original tree produced several seasons of high-packout fruit until it was removed at over 10 years of age. WA 2 cv. apples does not show high susceptibility to mildew, sunburn, or bitter pit. Mildew will show on a few terminals in a wet spring with no chemical controls applied. Stem bowl russet is common, and frost induced russet in and over the stem bowl can occur.

Harvest corresponds to Red Delicious timing. The fruit changes maturity slowly. Dark colored fruit is sensitive to stem and calyx cracking. Harvest at pink red color is the best mitigation for cracking. In 2009, an early October freeze induced a significant amount of stem-end splitting. In seasons with a mild fall, up to four harvests could maximize packouts for size and color.

## Post-Harvest Highlights:

- Fruit color is an attractive bright red-pink with distinct lenticels. The appearance of the variety improves from attractive at harvest to alluring by April.
- Fruit has excellent firmness, even after 8 months in CA storage.
- Low ethylene emission rates impart slow maturity changes at harvest and a long post-harvest shelf life.

Examples are:

- Retained firmness (no more than a 0.5-pound loss in firmness after 8 months in CA)
- Maximum soluble solids concentration after 8 months of storage in CA.
- Slow titratable acidity loss.
- Little difference between MCP (1-methylcyclopropene) and non-MCP treated fruit after long-term CA storage.
- No problems with disorders.
- Fruit tends to be starchy with little flavor at harvest. It is seldom well received until it has been stored for three months in regular storage or four months in CA.
- Fruit is very crisp (more so than Braeburn and Gala)
- No issues were apparent when submitted to pre-sizing and/or packing on a commercial packing line.
- Fruit is easily cleaned and has a nice shine after waxing

## Post-Harvest Performance:

WA 2 cv. apples are a Red Delicious harvest season variety that has a very long storage and shelf life. They benefit from several picks at harvest and should remain in storage to mature prior to marketing. They store well and handle a standard packing line well.

In 2010, the fruit was color picked at each of four picking dates and drenched to reduce decay. Thereafter, half of each batch was treated with 1-MCP within one week of harvest. The fruit was divided further into 2 and 4 months of regular atmosphere storage (at 33°F) and 4 and 8 months of controlled-atmosphere storage (1% carbon dioxide and 2% oxygen at 33°F). Following each storage time, fruit was removed from cold storage and held at room temperature for one week prior to evaluation.



We evaluated fruit that was subjected to a standard waxing and packing scenario, with and without pre-sizing. After each run, fruit was placed back into cold storage for 2 to 3 weeks and final evaluations were performed after one week at room temperature to mimic shipping and store display. Performance criteria include the appearance of the wax, number of punctures, and incidence of lenticels breakdown.

Sources: WSU CAHNRS - Tom Auvil and Ines Hanrahan (Washington Tree Fruit Research Commission), Kate Evans (Washington State University, Wenatchee)