

# WA 64 Apple Cultivar

## Announcement of Opportunity (AOO)



**Patent application name:** WA 64

**Trademark name:** To be determined

**Territory:** Exclusive to Washington State (within the USA); international

### **Summary Cultivar Description:**

WA 64 is an attractive pink blushed apple with outstanding eating quality, being both firm and tasty. WA 64 is a Washington State University (WSU) apple release that originated from a cross between Honeycrisp and Cripps Pink in 1998. After several months in refrigerated storage, the apple has very little reduction in quality, particularly firmness. It is suited to the fresh market from a couple of months following harvest in late September through long-term storage.

The WA 64 tree is a type III bearer, similar to Golden Delicious, with medium vigor (Fig. 1). Like WA 38, the tree is 'self-thinning' to singles and doubles. This symmetrical apple is small to medium, and round with 40 to 70% of the surface covered with a pink blush over a yellow background. It colors well and easily, if exposed to direct light. Skin finish is good with very little russet or bitter pit and very little

sunburn in the apple growing regions of central Washington. The fruit matures evenly, is not prone to preharvest drop and can be harvested in one pick if the canopy structure allows for light exposure. Harvest date is similar to Golden Delicious in central Washington.

Sensory and instrumental evaluations of crispness, juiciness, and hardness show the exceptional eating characteristics of WA 64, which is slightly less hard but considerably more crisp and juicy than Cripps Pink. WA 64 also retains these excellent texture characteristics after more than 6 months of refrigerated atmosphere storage. Sensory comparisons with Honeycrisp show that WA 64 is harder and has slightly less crispness and juiciness (see Tables 1, 2 and 3). Its sweetness and acidity are between those of its two parents. In consumer evaluations after seven months in refrigerated atmosphere storage, WA 64 was rated higher than controlled atmosphere (CA) stored Cripps Pink for overall acceptance, as well for taste/ flavor, and texture (See Figure 2).

WA 64 fruit has a high pack-out, it's not sensitive to bruising and handles well on a commercial packing line. It has excellent retention of fruit flavor and firmness throughout storage.

**Background:**

Washington State University (WSU) has officially released its new apple cultivar WA 64. The Washington State University Office of Commercialization (WSU-OC), the licensing arm of WSU, the assigned owner of WA 64, desires to find, through this Announcement of Opportunity (AOO) process, an exclusive licensee to manage the tree commercialization of WA 64, including contracting out the propagation of trees to nurseries and others, sublicensing to growers, trademark management, royalty collection, etc. WSU is not looking for the offeror under this AOO to be involved in sales and marketing of the fruit produced by the WA 64 trees, or assistance in the naming of the trademark for WA 64. WSU-OC encourages the submission of proposals by qualified offerors: individuals, individual companies, groups of companies, cooperatives, groups of individuals and/or companies banding together under a cooperative arrangement, etc.

WSU-OC has filed a plant patent application for WA 64 and is currently developing a trademark name for the fruit of WA 64. WSU-OC will apply for U.S. trademark protection for the chosen name. WSU-OC will also file for international Plant Variety Rights (PVR) in strategic territories and countries around the world. We are accepting applications that address both domestic and international efforts. Proposals can address the management of domestic and international, domestic only, or internationally only. However, if a domestic management plan only is proposed, offeror would need to propose how to collaborate and work with an international company for commercialization.

The offeror/licensee will manage commercialization of WA 64 as its contribution to achieve the following overarching objectives:

- 1) All qualified WA growers will have fair and reasonable access to the cultivar.
- 2) Long-term commercial success of the cultivar in Washington State

- 3) Management of appropriate commercial standards to provide adequate propagation and intellectual property management
- 4) Royalty schemas should provide a funding stream to contribute to the long-term financial sustainability of the WSU apple breeding program.
- 5) Manage a controlled release of WA 64 in foreign territories to maintain full intellectual property coverage but not compete with Washington production

**Components of the Offer:**

Offerors are required to:

- Provide a comprehensive commercialization plan from tree propagation to sale of trees to ensure that all growers in Washington State who wish to grow WA 64 trees will be able to do so in the least restrictive manner possible.
- Describe how the trees of WA 64 would be marketed to nurseries and growers.
- Demonstrate their capability and provide a plan to ensure that sufficient Certified Virus Tested (CVT) plant material is obtained, propagated, and made available for sale. Offeror should respond to questions such as: How many trees would offeror propagate for sale in the first 5 years of commercial availability of WA 64? How much budwood would need to be propagated? Offeror would need to set up a network of subcontractors (nurseries and other propagators) to carry out this function under offeror's full control. Offeror would need to describe how growers would purchase CVT finished trees or budwood from authorized nurseries (and other authorized propagators), or produce their own trees from CVT budwood supplied by authorized propagators. Offeror will demonstrate its ability to accurately track and account for all forms of propagated material including individual trees, budwood for grafting, and any grower propagated plant material. Offeror would need to ensure that only CVT plant materials are propagated and that propagators are authorized to propagate under the Washington State Fruit Tree Certification Program. Propagation of materials will commence at the time of award and continue for twenty (20) years, with an option to extend the term for an additional negotiated length of time. WSU-OC will provide the award winner with a list of currently authorized propagators of WA 64; however, it is anticipated that the award winner will need to sign up additional propagators to meet expected demand.
- Demonstrate their capability to collect and account for all tree and budwood royalties obtained from nurseries and other propagators. Offeror will provide plans to collect royalties on trees on a per-tree royalty basis or on an acreage royalty basis as well as a production royalty. Fully describe how the royalty collection system will be managed and carried out by offeror. As part of this discussion, offeror will propose how offeror is to be compensated for its efforts as part of its exclusive license agreement with WSU-OC, including the basis for such compensation.
- Demonstrate an adequate internal auditing and reporting system.
- Provide a plan for the management and enforcement of a trademark for WA 64 including suggestions for any quality (grade) and production elements that would be part of said trademark. Only fruit that can be sold through wholesale channels and meets grade requirements can carry the trademark name.

- Discuss how WA 64 would be protected from unauthorized propagation and/or distribution? How should such issues of infringement be handled?
- Suggest how changes in land ownership where WA 64 trees are located should be handled to mitigate any intellectual property concerns.
- Provide a plan to ensure that WA 64 plant materials will only be grown in Washington State at this time and that no WA 64 plant materials (except for apples produced) are shipped outside of the state by authorized propagators or growers.
- Provide a timeline to get contracts in place such that WA 64 plant materials can begin to get into growers' hands by late August/early September 2026, to take advantage of the fall budding season. Is this possible? Justify your response. The overriding focus of this AOO is to ensure that Washington State tree fruit growers have adequate access to CVT plant materials of WA 64 and a sufficient supply of trees through licensed nurseries and other propagators.
- Discuss their prior experience in undertaking one or more previous endeavors similar to what is being requested under this AOO.

**Additional Information Required:**

- Please provide brief biographies of personnel who would be assigned to this project.
- How many employees does your company have, and what is your current level of annual sales/services provided? Please provide a breakdown of sales/services by general category.
- Please provide a brief history of your company including areas of expertise.
- Does your company have a breeding program? Does it have/manage patented and trademarked varieties? Does it propagate, grow, market, and sell apple trees and apples?
- Why should your company be chosen as award winner over other potential offerors?
- Please provide any other pertinent information that you think we should know.

**Key Elements of Proposal:**

- Offerors should propose what they are willing to pay in the form of a non-refundable up-front license signing fee.
- Proposals should include a comprehensive tree commercialization plan for Washington State, including sublicensing arrangements and partnering plans, planting and production plans, milestones, and royalty projections.
- Proposals should include offeror's documented qualifications, experience, conflicts of interest, and references that WSU may contact.

**Evaluation Criteria:**

Offers submitted will be evaluated consistently and fairly by the Cultivar Licensing Committee (CLC) a committee composed of representatives from the tree fruit industry and WSU. Proposals will be

evaluated by carefully weighing core elements to identify a licensee that will efficiently and effectively deliver the WA 64 cultivar under a managed system allowing Washington growers who wish to participate to be able to do so. The CLC will provide recommendations to WSU, which will ultimately select the licensee.

Interested offerors should fully describe their prior experience and qualifications to successfully manage the WA 64 tree commercialization effort. Participation in the AOO process does not guarantee that a license will be awarded, but it is our hope that this process, to include a final negotiation stage between WSU and the provisionally accepted offeror, will result in an award of a license to a qualified and successful commercial enterprise.

The Proposals will be evaluated primarily against the criteria listed below:

- Offeror's overall response to the AOO
- Offeror's experience and proven track record in carrying out similar activities in the past
- Offeror's ability to successfully carry out the commercialization effort for WA 64
- Respondent's ability to meet any milestones and obligations
- Respondent's ability to manage the cultivar and the specifications of the trademark
- Revenue projections outlining the rate of return for offeror and WSU

**Disclaimer:** By submitting an offer under this AOO, offeror understands that WSU is under no obligation to award a contract or license agreement as a result of this solicitation. Offerors are cautioned to make no assumption of an award or acceptance until they receive written notification to that effect by WSU. WSU will choose one or more offerors considered to be provisionally accepted as potential final award winners. It is expected that one of the provisionally accepted offerors will be given the final award contingent upon the completion of a successful negotiation between WSU and the provisionally accepted offeror. If negotiation is unsuccessful, WSU may choose another provisionally accepted offeror with which to negotiate. All expenses that offerors incur in responding to this AOO will be borne by offerors. WSU will not reimburse offerors for any such costs.

Figure 1. WA 64 trees 3<sup>rd</sup> leaf on G.41 rootstock



Table 1. Fruit quality in 2014 for WA 64 and its parent cultivars Honeycrisp and Cripps Pink for fruit after 60 days in refrigerated storage plus a week at room temperature from two locations in Central Washington.

	Firmness (lbs)	Crispness Cn*	Sugars (% soluble solids)	Acidity (mg/l malic acid)	Fruit Weight (g)
Cultivar	Location A – Rock Island, Wenatchee				
WA 64	19.4	337	14.5	0.52	211
Honeycrisp	14.5	337	13.9	0.42	249
Cripps Pink	18.6	222	15.0	0.64	225
	Location B – Prosser				
WA 64	19.6	311	15.7	0.44	177
Honeycrisp	16.1	302	14.3	0.36	162
Cripps Pink	17.2	218	16.1	0.58	203

\*Crispness measure Cn as recorded by Mohr® DigiTest

Table 2. Mean instrumental fruit quality values for WA 64 and its parent cultivars Honeycrisp and Cripps Pink for fruit after 60 days in regular cold storage plus a week at room temperature from the Phase 2 trees of each cultivar at the WSU orchards, Rock Island, Wenatchee, from several harvest dates over 9 years

Cultivar	Firmness (lbs)	Crispness Cn*	Sugars (% soluble solids)	Acidity (mg/l malic acid)	Number of observations <sup>1</sup>
WA 64	18.7	327	13.9	0.47	27
Honeycrisp	14.5	326	13.1	0.43	20
Cripps Pink	18.5	207	14.9	0.65	19

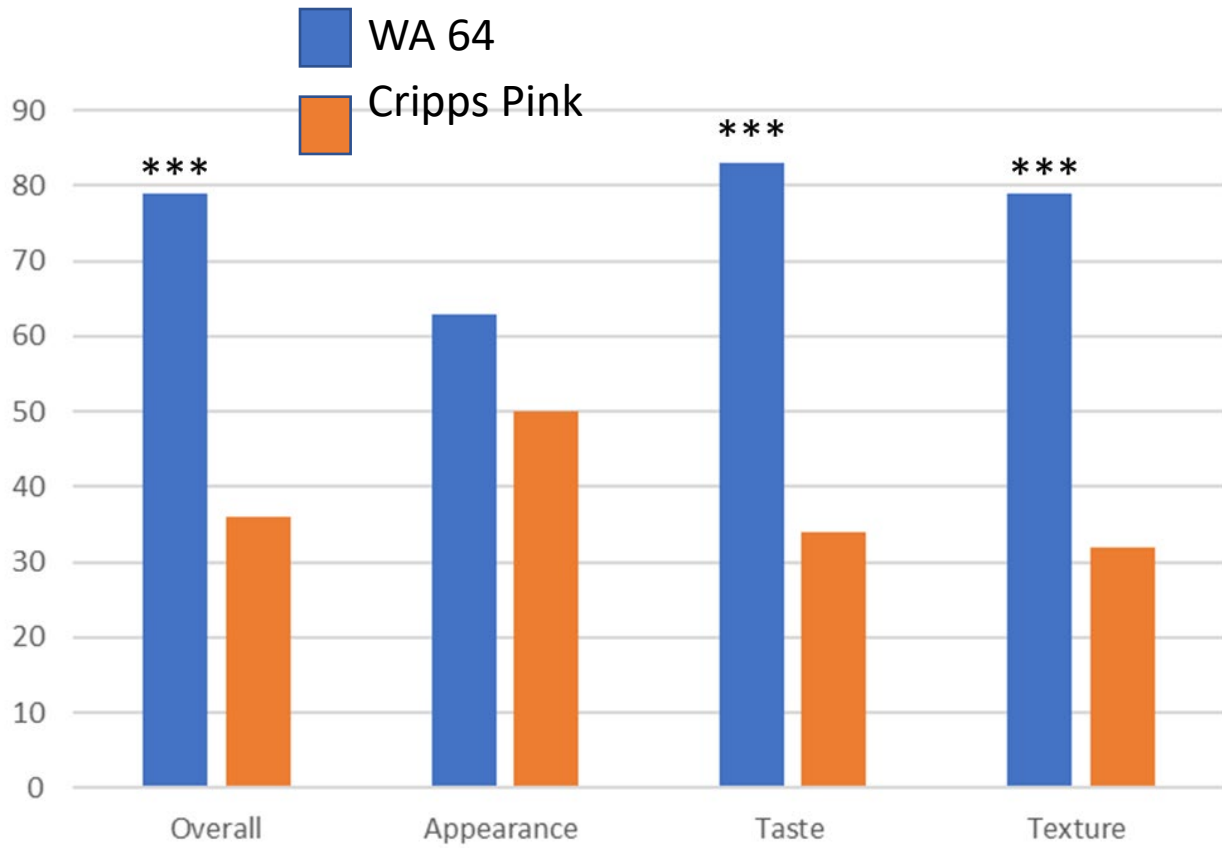
<sup>1</sup>Each mean is based on 19 to 27 observations; \*Crispness measure Cn as recorded by Mohr® DigiTest

Table 3: Mean subjective ratings of fruit quality (1 to 5 scale) for WA 64, Honeycrisp and Cripps Pink for fruit after 60 days in regular cold storage plus a week at room temperature from the Phase 2 trees of each cultivar at the WSU orchards, Rock Island, Wenatchee, from several harvest dates over 9 years

	Hardness	Crispness	Juiciness	Sweetness	Acidity
WA 64 <sup>1</sup>	3.5	3.1	3.1	3.2	3.1
Honeycrisp <sup>2</sup>	2.9	3.5	3.6	2.9	2.8
Cripps Pink <sup>3</sup>	3.5	2.5	2.7	3.3	3.5

<sup>1</sup>Each mean based on 27 observations; <sup>2</sup>Each mean based on 20 observations; <sup>3</sup>Each mean based on 19 observations; Values are subjective ratings on a 1 to 5 scale with 1 extremely poor, 2 poor, 3 average, 4 very good and 5 outstanding

Figure 2. Consumer preference pairwise comparison testing, Wenatchee apple blossom festival, 05.07.22



WA 64: harvested 9.29.21 Prosser, Refrigerated Atmosphere storage; Cripps Pink: Commercial quality, Controlled Atmosphere storage

N = 120; All differences (except appearance) are significant  $p < 0.001$



**Notification of Intent to Submit a Proposal:**

Though it will not disqualify an offeror from submitting a proposal, we would very much appreciate it if offerors intending to submit proposals would notify us in advance by **July 3, 2023**. Please send an email notification to Sita Pappu at the following e-mail address: [commercialization@wsu.edu](mailto:commercialization@wsu.edu)

**Submission of Proposals:**

One copy of each complete proposal must be submitted to WSU via the U.S. Postal Service, via an express courier, or electronic submission. Proposals sent via e-mail, fax, or by any other means will not be accepted or considered. Proposals should be sent to the following address:

WSU Office of Commercialization  
Attn: Assistant VP  
Lighty 280/286  
P.O. Box 641060  
Pullman, WA 99164-1060  
Email: [commercialization@wsu.edu](mailto:commercialization@wsu.edu)  
Electronic Submission: <site>

All completed proposals must be received no later than **Friday, August 4<sup>th</sup> 2023, by 5:00 p.m. PDT**. Late proposals will not be accepted or considered.

WSU reserves the right to negotiate with any business entity concerning this AOO. Submission of a proposal does not guarantee that your company will be granted an award.

If you have any questions, please contact Jeremy Tamsen at 509-335-6881 or [jeremy.tamsen@wsu.edu](mailto:jeremy.tamsen@wsu.edu).

**Timeline:**

The following dates are critical for the process to occur in a timely manner and meet WSU needs for marketing activities. It is anticipated that prior to award of the license agreement, WSU will develop a trademark name for the fruit.

**Item:**

**Due Date:**

Disseminate AOO	June 5, 2023
Notification of Offerors' Intent to Submit	July 3, 2023
<b>Full Proposals Due to WSU-OC (we will confirm receipt)</b>	<b>August 4, 2023</b>
Notification sent to Provisionally Accepted Offerors	August 25, 2023

Negotiation with Provisionally Accepted Offerors  
Selection and Notification of Award Winner  
License Agreement Signed  
Begin Implementing Program

Aug. 28 – Sept. 8 2023  
September 15, 2023  
October 13, 2023  
Immediately\*