

Supporting the University of Arizona Citrus Variety Collection 2018¹

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Introduction

The 8-acre citrus variety collection at the Yuma Agriculture Center was the most comprehensive collection of citrus trees within Arizona, containing about 110 selections. The collection was propagated in 1993 and was found in Block 17.

The collection had value because it served as a resource for research, teaching and extension. From 1993 until 2008, data was taken from the lemon selections within the collection. We used fruit, leaves and flowers from the collection to teach students of the Citrus and Date palm production course that I teach through UA-Yuma. A part of one laboratory session took place within the collection. We also used the collection to teach Master Gardeners, and we lead tours through the collection for Master Gardeners and other interested parties. We use fruit from the collection for displays and tasting for community events.

By 2018, the trees were aging, and we decided to re-propagate the collection into a 3-acre parcel in Block 18 at the Center. About one acre of the new collection is in the ground. Some of the new trees have fruit.

The University bore the cost of maintaining the collection blocks for the past 23 years, but according to UA administration, those costs could no longer be completely absorbed. The old collection was irrigated, but the pruning, fertilization and orchard floor management operations were reduced or eliminated. There was discussion of removing the old collection, before the new collection is bearing fruit, if no revenue can be found, but if they were to be removed, there would be no fruit for research, teaching and extension for some of the selections for a few years. Also, if some of the old trees had been removed before they are successfully re-propagated, there was a risk that we will lose that variety altogether.

Therefore, we asked the ACRC to support 50% of the cost of maintaining 8 total acres of the old citrus block for six months of 2018 plus one year of support for 50% of the cost of maintenance of the new collection. Because the ACRC was able to provide funding, the University of Arizona agreed to provide the additional 50%. As a result, the ACRC helped to ensure a reliable supply of fruit for research, teaching and extension during 2018 while the new collection was propagated, growing and bearing fruit.

Materials and Methods

With the funding, The University of Arizona maintained the two collections during 2018. Fruit from both collections was used for demonstration and tasting for Master Gardener and community events in Yuma, Maricopa, Pinal, Pima and Mohave counties. The fruit was also used for tasting and demonstration in PLS403 “Citrus and Date Palm Production” – a class taught during the Spring Semester 2018 at UA-Yuma. Late in 2018, the 8 acres of the old collection was removed.

A map of the new variety collection, comprising 71 varieties, in Block 18 can be found in Figure 1.

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Results and Plans for the Future

We expect to keep propagating trees and expanding the new collection in block 18.