

# INTRODUCING THE LUNA UCR™ AVOCADO



## MEET THE LUNA UCR™

A new avocado variety that's more than a half-century in the making was introduced to growers in the world marketplace in October 2023.

Developed by UCR scientists and known as the **Luna UCR™**, the new variety offers consumers great flavor, a rind that turns a tell-tale black when ripe, and high postharvest quality. Growers will also benefit from a smaller tree size, allowing denser plantings for more efficient and safer harvesting, and minimal pruning.

It also has a type of flower that makes it an efficient pollinizer for various avocado varieties, including the stalwart Hass, the world's leading variety. Planting the Luna UCR™ intermingled with other varieties could help ensure good yields by increasing pollination rates.

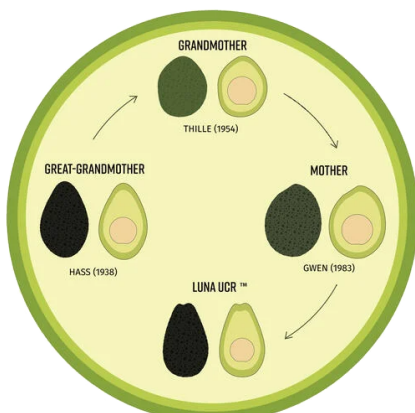
The Luna UCR™ is officially known as the BL516 and is protected under a pending patent that credits **Mary Lu Arpaia**, a UC Cooperative Extension horticulturist based at UCR, and her colleague **Eric Focht** (pictured) a UCR staff research associate in the Botany and Plant Sciences Department. Other credited "co-inventors" are former UCR scientists Gray Martin, the late David Stottlemyer, and the late B.O. "Bob" Bergh, who left UCR in 1991.



L to R: UCR scientists Mary Lu Arpaia & Eric Focht pose in front of a Luna UCR™ tree

The variety will be marketed to growers worldwide through a partnership with Eurosemillas, SA, a company based in Spain that specializes in international marketing of proprietary crop varieties. Under an agreement worked out by UCR's Office of Technology Partnerships, Eurosemillas is the licensee of the variety. Eurosemillas has established partnerships with growers in 14 countries outside of the USA to grow the Luna UCR™.

## THE LINEAGE OF LUNA UCR AVOCADO



UCR graphic by Kristen Danforth

The development of Luna UCR™ has been intergenerational, and goes back to the work of Bergh in the 1950s, when the avocado industry sought a green skinned Hass as an alternative to the smooth-skinned and green-colored Fuerte avocado – the nation's top seller from the 1920s to the 1970s.

UCR scientist Bob Bergh went to work, planting thousands of genetically different avocado seedlings from a Thille avocado, an offspring of the Hass, in search of a perfect green version of an otherwise Hass-like fruit. More than 20 years later, in 1983, he succeeded with the release of the Gwen, named after his wife.

Unfortunately, the Gwen avocado was a commercial flop, because technology and advertising solved consumer issues with an avocado's black skin. The arrival of drip irrigation meant Hass groves could be planted on steep hillsides, which allowed for a great expansion of the industry in Southern California in the late 1960s and 1970s.

Bergh recognized that although Gwen had not found a place in the commercial marketplace, it might provide the basis of future avocado varieties. He planted as many as 70,000 genetically different seedlings from Gwen mother trees at three sites with different climates. One of the Ventura Country trees that became the first of what is now the Luna UCR™ avocado, with the preferred black skin when ripe. Unfortunately, Bergh will not see the release of this fruit of his labor. He died in 2021 at age 96.

"Fruit breeding is a very long-term process," Arpaia said. "So, you build upon the shoulders of your predecessors."

## LUNA UCR™ NAMED A TIME MAGAZINE BEST INVENTION OF 2023

The Luna UCR™ was selected as one of TIME's 2023 Best Inventions in October 2023, just months after UCR released the variety to commercial growers worldwide through an international crop marketing partner. The Luna UCR™ is one of TIME's 200 "groundbreaking" inventions that debuted this year and "are changing how we live, work, play, and think about what's possible," TIME said in a statement.

"Luna UCR receiving recognition as one of TIME's 200 top inventions for 2023 is a tremendous achievement," said Rodolfo Torres, UCR's vice chancellor for Research and Economic Development. "It represents not only a remarkable innovation but also a glimpse into the future of agriculture and its immense potential," Torres continued. "We hope that Luna UCR™ can drive a new era of high-yield farming while strengthening UCR's reputation as a leader in groundbreaking and sustainable research and development."



## WATCH THE VIDEO: A REPORT FROM THE GROVES

Mary Lu Arpaia and Eric Focht have bred avocado trees in association with UCR for decades. Scan the QR code to watch them describe their quest for a better avocado that resulted in the release of the Luna UCR™. Speaking from experimental UC groves in Irvine, Arpaia and Focht describe the benefits of the Luna and the challenges of creating this new fruit of their labor.

