

Did You Know?



Carrots are a well-known source of vitamin A, and one carrot can provide an adult with the recommended daily allowance for this vitamin. The human body converts beta-carotene—the orange color pigment found in carrots—into vitamin A, which aids in clear vision, bone growth, tooth development, and reproduction. It also supports a healthy immune system and plays a role in maintaining vital organ functions—including the heart and kidneys.

Today, carrots are probably one of the leading fresh vegetable sources for vitamin A, partly due to ARS research at the ARS Vegetable Crops Research Unit in Madison, WI. Researchers started breeding high-carotenoid carrots more than 30 years ago. Thanks to this ARS research, today's carrots provide consumers with 75 percent more beta-carotene than those from 5 decades ago.

Although many consumers are more familiar with traditional orange-colored carrots, that's not the only color this crunchy veggie comes in. Carrots can also be red, purple, yellow, and white. These interesting colored carrots have been around for more than 1,000 years, and they originated in Afghanistan. ARS scientists turned to these rainbow-colored carrots in hopes of increasing the pigment content of these beauties. Imagine a salad decked with these colored gems: It would not only be visually appealing, but it would also come with an added healthful boost!

Red carrots derive their color mainly from lycopene, another type of carotene believed to guard against heart disease and some cancers. Purple carrots contain anthocyanin pigments, which are powerful antioxidants. Yellow to white to gold carrots accumulate xanthophylls—

pigments similar to beta-carotene—which support eye health. These “rainbow” carrots taste...well, just like carrots!

ARS researchers are not only focusing on breeding nutritionally enhanced carrots, but they are also looking at ways to improve their quality and consumer appeal—including texture and taste. Although today's consumers seem to be more daring on the culinary front, demand for this unusual vegetable may be limited to a niche market.

Other ARS research on carrots has improved the processing of this item. Thanks to ARS researchers, consumers can find peeled carrots that are free from the white film that hides their brilliant color. The researchers developed a simple method to dip peeled carrots in a heated citric acid bath for 30 seconds—just enough to keep that nasty film from forming—to help peeled carrots remain visually pleasing to consumers.

Consumers want a flavorful, sweet, crispy, healthful carrot. ARS researchers are ready to help farmers meet growing consumer demands for this food.

Colorful carrots are available at specialty grocery stores and perhaps at some local farmers' markets. Check online to see if your store sells them.

So the next time you grab a carrot, thank an ARS researcher for his/her role in improving this healthy vegetable—making it not just a cool veggie, but also a healthful, colorful, snack-worthy staple.

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