

Fresh Fruits and Vegetables Retain Antioxidants Long After Purchase

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Fresh fruits and vegetables retain their antioxidants long after purchase, even as signs of spoilage appear, a new study shows. Credit: Courtesy of USDA-Agricultural Research Service

The next time you think about throwing out those aging strawberries or very ripe grapes, consider this: Belgian scientists report that fruits and vegetables do not lose any antioxidant content in the days after purchase, even as tell-tale signs of spoilage appear. In some cases, antioxidant levels actually rise.

The study will appear in the Oct. 17 issue of ACS' *Journal of Agricultural and Food Chemistry*.



The life of a post-harvest fruit or vegetable is traditionally defined in terms of visual appearance and texture. While this is good for aesthetics, these benchmarks disregard flavor and nutritional quality—especially with regards to antioxidants, which are affected by genetic, technological and environmental factors. "No important studies were done to evaluate the influence of storage on antioxidant capacity," the authors said.

To that end, Claire Kevers and colleagues obtained various produce from the Belgian market, measuring its initial antioxidant content. They then stored the fruits and vegetables at room temperature or refrigerated them at 39 degrees Fahrenheit, checking antioxidant levels at various times until the produce presented visual spoilage.

The results showed that, in the days following purchase, fruits and vegetables do not lose any phenolic compounds, ascorbic acid or flavonols — a trio of chemical classes associated with antioxidant content. "Better, in some cases, an increase on the antioxidant capacity was observed in the days following their purchase, accompanied by an increase in phenolic compounds," the researchers state.

Source: ACS

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