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## **Some Strawberry Cultivars Contain High Levels of Ellagic Acid**

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COLUMBUS, Ohio – Certain strawberry cultivars appear to contain high levels of ellagic acid, an anticarcinogenic compound partly responsible for warding off diseases such as cancer.

According to an Ohio State University report, several strawberry cultivars, evaluated for their ellagic acid content, contain the compound in varying amounts in the leaves of the plant, and the pulp and seeds of the fruit.

The research, conducted by OSU horticulturist Dick Funt and OSU food safety researchers, Steven Schwartz and Winston Bash, was meant to provide growers helpful information on marketing a product based on nutraceutical usefulness.

The researchers measured ellagic acid content of nine Ohio cultivars and four non-Ohio cultivars over a three-year period to determine which cultivars contained the highest levels of ellagic acid in the leaves, seeds and pulp. Ohio cultivars studies include ‘Earliglow’, ‘Jewel’, ‘Kent’, ‘Delmarvel’, ‘Allstar’, ‘Mohawk’, ‘Northeast’, ‘Startyme’ and ‘Seneca’. Non-Ohio cultivars studied include ‘Oso Grande’, ‘Camarosa’, ‘Sweet Charlie’, and ‘Chandler.’

Results showed that Ohio cultivars ‘Earliglow’ and ‘Kent’ had the highest levels of ellagic acid in the pulp and the seeds. No difference was found in the amount of the compound present between ripe and unripe fruit. ‘Mohawk’ contained the highest level of ellagic acid in the leaves. The study also found that non-Ohio cultivars contained nearly 6 percent more ellagic acid in the seeds than Ohio cultivars. Overall, ellagic acid content was found in the highest amounts in the leaves, intermediate in seeds and lowest in pulp. The ‘Earliglow’ cultivar, the most popular cultivar grown in Ohio, contained the highest amount of ellagic acid in all three areas analyzed compared to other cultivars.

This research and research in Maryland indicate that ellagic acid in strawberries does not vary from different soils or different growing locations where it has been tested. It does appear that ellagic acid content does vary from year to year but the reasons for variation is not known. Further research into the ellagic acid content of the leaves may prove beneficial in reducing insect damage and reduced pesticide usage.

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