



2007 USDA Database of ORAC Scores for 277 Common Foods



Put high-ORAC foods into your diet!

Inventors of the often-used benchmark for antioxidant quality of foods - ORAC - are scientists with the US Department of Agriculture who have published a new list of ORAC scores for common foods consumed in the United States.

For a review of ORAC from the Berry Doctor's Journal, [begin here](#) and browse through the topics.

Here's [what the ORAC score actually measures](#) -- remember: it's a laboratory measurement in a test tube.

There is no way to measure antioxidant values inside the human body!

Now that you have some familiarity with this subject growing in public interest,

you can scan the PDF file for foods you currently use in your diet then perhaps *add more with high antioxidant capacity.*

Here's the new 2007 USDA database

click on the ORAC Report!

Background

A **pandemic** of poor diets and lifestyle practices linked to rising rates of obesity, diabetes, cancer, chronic inflammation, pain and cardiovascular diseases has swept across the world in recent decades.

Recognizing the urgent need to redirect consumer attention toward healthier eating habits and lifestyles, various scientific and consumer organizations have released advisories for eating higher amounts of whole natural foods, including color-rich plants like berries that have relatively high ORAC among foods commonly eaten in Western diets.

Health Power of Pigments

Discussed previously from the Berry Doctor's Journal, pigments are the antioxidant chemicals naturally present in colorful plant foods.

- **Berries and the Color Code**
- **Phenolics, Flavonoids and Anthocyanins**
 - **Power of Pigments**



Spoon yourself some ORAC!

Summary of Key Interpretations

- all foods have antioxidant value
- the hierarchy of ORAC values among foods 1) is proportional to **phenolic content**, assessed in the report by gallic acid (a natural plant phenolic) equivalents and 2) is

approximately proportional to color richness

- "color richness" can even mean "blackness", "blueness", "purpleness" or "redness", i.e., more color = more pigments = more ORAC
- pigments that distribute in water (e.g., phenolics and vitamin C) are additive with those that dissolve in fat (e.g., lipid-soluble carotenoids and vitamin E)
- foods that have been dried have increased ORAC, an artificial result due to less water in the reference amount of food analyzed -- this is partly why dried ground spices have such high ORAC values

Highest ORAC scores among the 277 foods were *spices* (values are ORAC units per 100 grams of food sample)

1. dried ground cloves = 314,446
 2. cinnamon = 267,536 (yes, go ahead and flavor your snacks with as much as you like)
 3. oregano = 200,129
- Dried cocoa (80,933) and baking **chocolate** (52,000) had high ORAC scores !
 - Common **black pepper** had a respectable ORAC of 27,618 !

Other facts

- Lowest ORAC scores were for watermelon (142), eggplant (245) and iceberg lettuce (438)
- Foods with pigmentation scored higher than their cousins with less, e.g. red delicious vs. golden delicious apples, red leaf vs. white iceberg lettuce, black vs. red currants, red vs. white onions
- Cooking reduced ORAC scores

*Results for **Common Berries** Grown and Consumed Domestically in the USA*

<i>Berries</i>	<i>ORAC</i>
Black chokeberry	16,062
Elderberry	14,697
Cranberry	9,584
Black currant	7,960
Cultivated blueberry	6,552
Blackberry	5,347
Red	4,882

raspberry	
Raisin (grape)	4,188
Strawberry	3,577
Red currant	3,387
Gooseberry	3,277
Grape (raw)	1,260

Numbers are micromoles of Trolox equivalents per 100 grams of sample (this is the laboratory measure of ORAC)



Black chokeberries, *Aronia melanocarpa*
Courtesy of Purdue University

Non-US native berries discussed here at the Berry Doctor's Journal

(omitted from the 2007 USDA ORAC report)

- [Açaí](#) = 102,700 ORAC units (click for reference)
- [Seabuckthorn](#) ("seaberry", not reported; expected high due to exceptional levels of vitamins C and E, carotenoids and phenolics)
- [Goji](#) (wolfberry) = 30,300 (read the [ORAC and nutrient comparison with açai here](#), click)
- [Check out the ranking of the top 10 ORAC berries!](#)

*Controlling ORAC intake is
in our own hands...*



Could health be any easier?

Eat a Colorful Diet!

Additional References (inexpensive on [Amazon.com](https://www.amazon.com))

- Heber D. *What Color Is Your Diet?*, ReganBooks/HarperCollins, New York, 2001
- Joseph JA, Nadeau DA, Underwood A. *The Color Code*, Hyperion Books, New York, 2002

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