Antioxidant Properties of Cocoa Products

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The popularity of chocolate has been recognized throughout its long history. A fermented beverage made from chocolate was described in 450 BC in Mesoamerica, but the sugar-containing product modern people are more familiar with was developed as explorers brought chocolate back to Europe. Chocolate contains hundreds of chemicals and is rich in antioxidants, but the processing required to make commercial chocolate damages these antioxidants. We propose to trace the loss of antioxidant potential, and to characterize the particular antioxidants that are lost through a series of separation steps that will isolate the individual components and a series of analytical steps that will quantify them. A separate step, Dutch processing, also damages the antioxidant potential of chocolate, and we'll include Dutch-processed samples in those we analyze to allow determination of the cost of this process.

