Acids with Anthocyanins and Antioxidants



Ancient Sunrise® Nightfall Rose: Aronia Prunifolia

Ancient Sunrise® Nightfall Rose is a mildly acidic wild fruit powder with a high level of anthocynanin, a pigment produced naturally in the berries. Anthocyanin pigments range from blue to purple to pink. Anthocyanins create the colors in ripe blueberries, blackberries, grapes, elderberries, cranberries, raspberries, cherries, pomegranates, and plums, eggplants, beetroots, and red cabbage, the fruits and vegetables that are beneficial in our diets. Anthocyanin pigments can give rise to an array of red to blue colors, depending on the pH of the medium.

¹ Bueno, Julia Martín, Purificación Sáez-Plaza, Fernando Ramos-Escudero, Ana Maria Jiménez, Roseane Fett, and Agustin G. Asuero. 2012. "Analysis and Antioxidant Capacity of Anthocyanin Pigments. Part II: Chemical Structure, Color, and Intake of Anthocyanins." *Critical Reviews In Analytical Chemistry* 42, no. 2: 126-151. *Academic Search Complete*, EBSCO*host* (accessed September 20, 2014).

² Entertain yourself by soaking red cabbage with vinegar and watch the color change from alkaline to acidic pH.



Ancient Sunrise® Nightfall Rose powder

Ancient Sunrise® Nightfall Rose naturally has malic acid and is acidic enough to make a hydrogen rich henna or cassia paste. Add 25g of Nightfall Rose to filtered or distilled water or the tea of your choice, and stir that into 100g of henna or cassia powder; increase the amount of Nightfall Rose as you increase the amount of henna or cassia.

The malic acid in Nightfall Rose is very gentle to hair. Though Nightfall Rose is a deep rose color, it will not add a dark red color to cassia or henna. The anthocyanins in Nightfall Rose will add a subtle ash tone to henna and cassia mixes, and creates lovely brunettes with henna and indigo mixes. The antioxidants in Nightfall Rose deter browning that may occur over time with henna.



Ancient Sunrise® Copperberry: Malpighia Glabra L

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Ancient Sunrise® Copperberry can be used to mix a hydrogen-rich henna paste. Copperberry has high levels of antioxidants and vitamin C, higher than other fruits.³ Antioxidants in your henna mix will keep the henna color brighter, and less likely to darken over time. You may mix Ancient Sunrise® Copperberry with filtered or distilled water or your favorite tea to make your henna paste, just as you would use Amla. Amla's gallic acid adds an ash tone to henna; Copperberry's ascorbic acid keeps the henna bright and rosy.



Ancient Sunrise® Copperberry powder

You can mix Ancient Sunrise® Citric acid, Amla, Copperberry and Nightfall Rose powders directly into henna or cassia powder and then add filtered or distilled water, or you may mix them with herbal tea. If these acids make your tea or water about as sour as lemonade, that's sour enough to preserve the hydrogens in your henna paste so the lawsone will bind properly with the keratin. Tea won't change the resulting color of your stain, even though the tea itself has a color. Black tea won't darken your henna stain, and caffeinated teas may give you the jitters if you're sensitive to caffeine. Hibiscus and roobios teas are dark red from anthocyanins but they do not add red tones to the henna stain. Spicy teas, particularly cardamom or ginger tea, can help mask the earthy smell of henna.

You may mix fruit powders or fruit juices into your henna paste; whichever is more convenient for you. Powders may be convenient because you can keep them on hand for months, even years. Juices may be convenient if you happen to have them in your kitchen anyway.

³ Mezadri, T., D. Villaño, M.S. Fernández-Pachón, M.C. García-Parrilla, and A.M. Troncoso. 2008. "Antioxidant compounds and antioxidant activity in acerola (Malpighia emarginata DC.) fruits and derivatives." *Journal Of Food Composition & Analysis* 21, no. 4: 282-290. *Academic Search Complete*, EBSCO*host* (accessed September 20, 2014).

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