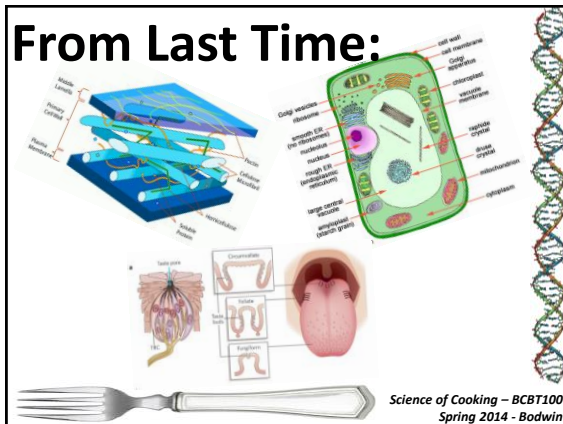


From Last Time:



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Cooking Plants

Chlorophyll

Acid or base
hydrolysis

Displace Mg^{2+}

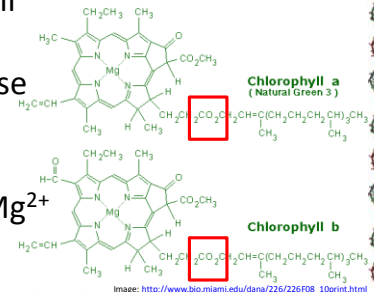


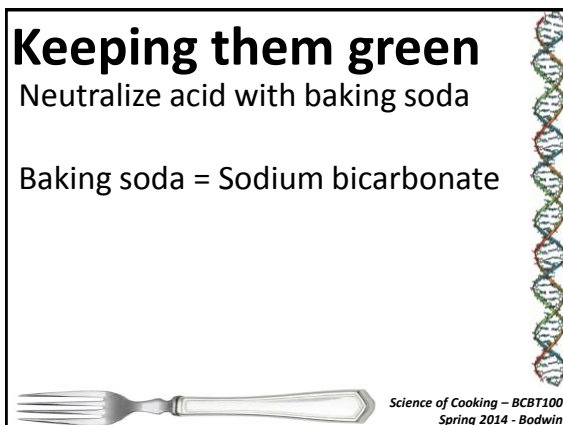
Image: http://www.bio.miami.edu/dana/226/226F08_10print.html

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Keeping them green

Neutralize acid with baking soda

Baking soda = Sodium bicarbonate



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Cooking Plants

Anthocyanins and Anthoxanthins

pH sensitive

Keep acidic?

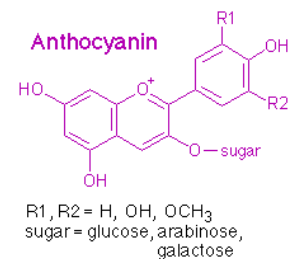


Image: <http://www.succulent-plant.com/glossary/images/anthocyanin.png>

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Cooking plants

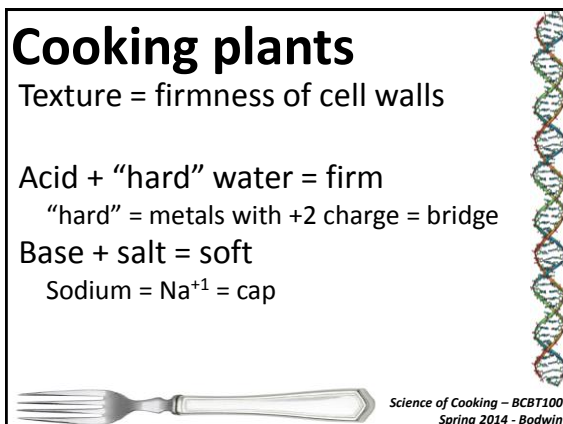
Texture = firmness of cell walls

Acid + "hard" water = firm

"hard" = metals with +2 charge = bridge

Base + salt = soft

Sodium = Na^{+1} = cap

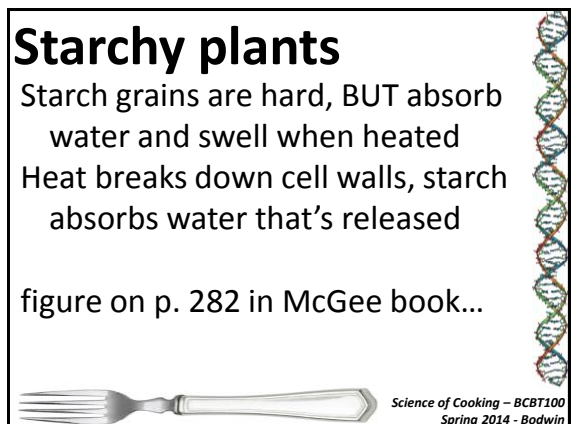


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Starchy plants

Starch grains are hard, BUT absorb
water and swell when heated
Heat breaks down cell walls, starch
absorbs water that's released

figure on p. 282 in McGee book...



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Starch

Starch is hydrophilic, but hard
Gel loses water, crystallizes

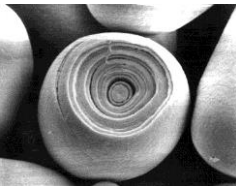
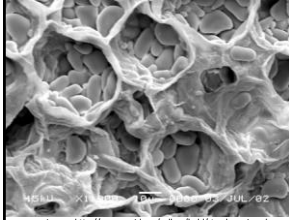


image: http://www.roid.org/gallery/field/starch_grains.php

image: <http://sciencegirlforrock.wordpress.com/2011/05/30/women-of-outstanding-achievement/>



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