

# Making Chocolate

Theobroma cacao

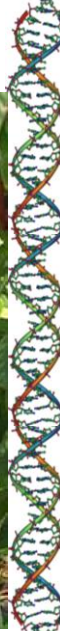


Image: <http://www.plantmanagementnetwork.org/pub/php/review/cacao/>

imageL <http://askville.amazon.com/grow-cocoa-chocolate-plants/AnswerViewer.do?requestId=1267051>



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# Cacao Pods

Content

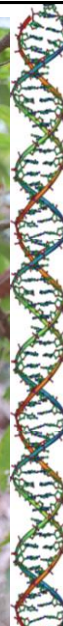


Image: <http://www.fairchildgarden.org/livingcollections/tropicalfruitprogram/jackfruit/cacao/>



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# Cacao Growing

Requires specific climate  
Within  $\sim 20^\circ$  of the equator



Image: <http://www.sfu.ca/geog351fall03/groups-webpages/gp8/prod/prod.html>



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# Cacao Growing

Requires specific climate, within  $\sim 20^\circ$  of the equator



Image: <http://www.barry-callebaut.com/1897>



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# Cacao

"Beans" removed

Very bitter

Fermented

Sugars → acids

Flavor develops

Dried (sun) ~1 week

Bagged & shipped



Image: <http://hnrwright-blog.com/2011/12/12/la-comunidad-cofan-part-ii/>



Image: [http://article.wn.com/view/2010/06/15/Lindts\\_NH\\_chocolate\\_plant\\_grows\\_to\\_process\\_cocoa/](http://article.wn.com/view/2010/06/15/Lindts_NH_chocolate_plant_grows_to_process_cocoa/)



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# Beans to Chocolate

<http://www.youtube.com/watch?v=cPAn4flcvBI>

Crushing/winnowing

Roasting

Grinding/"conching"

Mixing/pressing



Image: <http://library.thinkquest.org/08aug/01181/cacao.html>



Image: <http://www.cacao-beans.com/>



Image: <http://madrelabsblog.com/2012/10/15/chocolate-controversy-study-says-chocolate-wont-fatten-you-up/>



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# Chocolate Composition

Proteins (10+%)

Fiber (10+%)

Cacao Butter (50+%)

Sugars (1%)

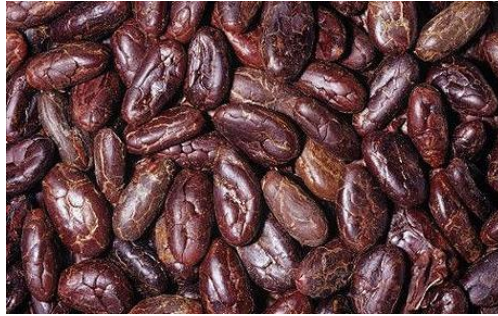


image: <http://joyremandocrave.blogspot.com/2011/06/tsokolati-ni.html>



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# Types of Chocolate

*Plant types:*

Criollo

Delicate flavors, floral

Forastero

More robust

Trinitario

Hybrid of Criollo & Forastero



Image: <http://www.yourdictionary.com/chocolate>



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# Types of Chocolate

Products, legal definitions

Unsweetened

Bittersweet

Sweet (dark)

Milk

White

{p.704, McGee}



Image: <http://en.wikipedia.org/wiki/Chocolate>



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# Cocoa Powder

Residue after butter is removed

“Dutched” = Treated w/base to make  
more water soluble



Image: <http://cocoaandfig.blogspot.com/2009/02/cocoa-powder.html>



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# Storing Chocolate

Temperature is critical! Below 70°F

Tempering {p.702, McGee}

Gives chocolate proper texture

“Bloom”

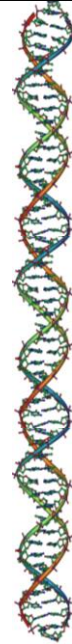
Fat melting out of chocolate

Crystallizes on surface

Looks dusty



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# Cooking with Chocolate

Melting

Careful heating

“breaking” or “seizing”

Savory dishes



Image: <http://www.marketplace.org/topics/business/british-chocolate-maker-offers-sweet-deal>  
<http://www.poorgirlatwell.com/2010/10/project-food-blog-3-for-love-of.html>



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# Tasting Chocolate

Let it melt in your mouth

Brings out flavors/aromas

Feel the fats melt

Smooth/Gritty texture



Image: <http://abcnews.go.com/blogs/lifestyle/2011/10/its-national-chocolate-day/>

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# Chocolate flavors

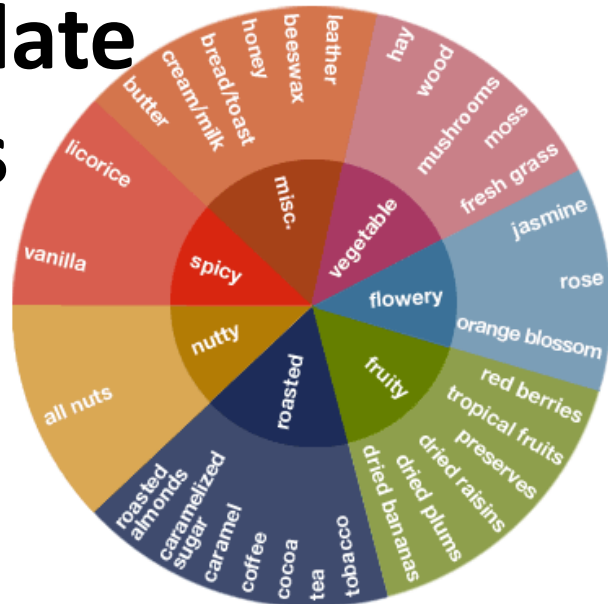


Image: [http://www.allchocolate.com/enjoying/intro\\_to\\_chocolate/chocolate\\_notes.aspx](http://www.allchocolate.com/enjoying/intro_to_chocolate/chocolate_notes.aspx)

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# Tasting Notes

Observe, observe, observe!

Use all your senses

Appearance

Aroma

Mouth feel

Flavor

Finish

Overall Impressions

Palate cleansing



[www.allchocolate.com](http://www.allchocolate.com)

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# Tasting Notes

How does the chocolate feel on the tongue?

Is it smooth, thin, creamy, uniform, grainy, uneven?

Does it melt evenly?

How complex are the flavors?

Initial? Develop? Lingering?

How intense/strong are the flavors?

Are there multiple flavors?

How bitter/astringent are the flavors?



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