## CHOCOLATE By Jackie Johnson BS, ND, MH

Chocolate fills our minds many shelves in many stores! Did you ever wonder where all that chocolate comes from?

Chocolate, or Theobroma cacao, grows in trees in the tropics, actually only from 10 – 20 degrees north and south of the equator. If you're a zone person, that would be 9B – 11. Probably not the ideal houseplant either since it likes about 80" of rain a year, humidity of 65 – 70% and can grow more than 50 feet in the wild. It will produce best at ¼ to ¾ miles above sea level. It is native to Central and South America but the largest concentrations of cocao are currently grown in the Ivory Coast of Africa.

Worldwide, about 15 million acres are planted in cocoa and 90% of these grown by families with less than 12 acre parcels! Those 15 million acres produce about 3.3 million tons of cocoa beans!

Hawaii is our only State that grows chocolate. In fact, Hawaii is our only State that grows all three "infusion" drinks – chocolate, coffee and tea! Hawaii has approximately 75 acres in chocolate.

Theobroma produces tiny (about ½ inch) flowers that grow directly from the trunk of the tree. These flowers have little if any scent, and are pollinated by midges from the forest floor. We're lucky we have enough chocolate in the world – only about 4 to 5 in 100 of the flowers get pollinated, and of that, only 4 or 5 pollinated flowers grow into mature "pod".

The pod is about the size of a football, and it too, grows directly from the trunk of the tree. Technically, this pod is a berry, and each pod contains about 30-40 seeds which ultimately becomes the chocolate we hold in such fondness.

Pods are harvested by hand to avoid damaging the soil, the pod and the tree. It is opened by hand with a machete – an experienced worker can open about 500 pods an hour. Traditionally the seeds/beans are laid out and covered with banana leaves to start the fermentation process that produces that flavor we enjoy. This fermentation can take up to 7 days. The beans are then sun dried to

about 6% moisture (another 7 days) to avoid molding during travel. In this state they are shipped world wide to be further processed into the recognizable state we know and love.

Nature provides, and in the wild, monkeys and other forest animals, break open the pods and eat the luscious pulp that surrounds the bitter beans. In the process, the beans are spat out and scattered along the forest floor where they grow to be cocoa trees, protected from the wind and sun by the larger trees.

Chocolate was well known to the Maya and Aztec. Mixed with chilies, honey and spices it was frothed into a drink fit for kings! Montezuma is said have enjoyed many cups of cocoa before visiting his harem of 300 wives. Cocoa beans were also used to pay taxes and as currency. One bean would buy a pumpkin or a rabbit. 10 beans would get you a hooker; a mule was about 50 beans and for only 100, you could purchase a slave to froth your cocoa!

Chocolate was kept in the Americas until the 1500's when it traveled to Spain, and, with sugar added, became an immediate hit! Interestingly, it took nearly 100 years for the secret of chocolate to move from Spain to the rest of Europe. So well kept was this secret, that pirates raiding a Spanish ship found what they thought were bags of sheep dung and burned the ship in anger!

The secret has been out for less than 500 years but the United States produces about \$16 billion dollars in chocolate a year. Worldwide that number is closer to \$75 billion!

The United States biggest chocolate holidays are (in order): Halloween, Easter, Valentines Day and then Christmas.

Recent medicinal research has been indicating that the ancient Maya and Aztec may have been on to something. Dark chocolate has more than 300 vitamins, minerals, and other nutritional compounds and has been showing promise as an antioxidant, mood enhancer, and with dilation of blood vessels. Watch for more research before wolfing down several bars a day in the name of medicine – it's the fat content that's not so good – the chocolate nibs (heart of the beans) is about 50% fat! And then, there's at sugar... Most researchers agree that for there to be any health benefit, it should be at least 70% dark chocolate (and only in one once increments). Watch your research papers as

well – chocolate manufacturers (especially from Hersey PA) and marketers may be skewered in their testimonials.

But, for this time of year, is there really anything else that says "I love you" quite the way that your favorite chocolate does?

## CHOCOLATE TRIVIA From: 1,001 Reasons to Love Chocolate

## Annual chocolate consumption in pounds per year

<b>Switzerland</b>	22.36	United Kingdom 17.49
Austria	20.13	Belgium 13.16
Ireland	19.47	Australia 12.99
Germany	18.04	Sweden 12.90
Norway	17.93	United States 11.64
Denmark	17.66	France 11.38

Chocolate is the #1 food craved by women, especially during the evening and night. 65% of women reported they ate chocolate weekly!

Fine chocolate should be rich and even in color with a smooth, glossy surface. Cracked or dull colored chocolate is a sign of poor quality. It should break cleanly, not crumble. It should feel smooth and melt evenly in your mouth, not gritty, waxy, sticky, or chewy.

Americans spend over \$1 billion dollars on Valentine's Day candy annually.

Thomas Jefferson was a big fan of hot chocolate. He hoped it would take the place of coffee and tea.

From the Civil War thru WW II, the US government recognized that in addition to providing nourishment, chocolate kept up the spirits of the troops. During WW II, 500,000 chocolate bars were produced every DAY for the U.S. Army. Chocolate even flew into space as comfort food for the astronauts.

Brownies are classified as a bar cookie and are a cross between cake and cookie. No one knows the exact origin of brownies, but a popular story

credits Ms. Mildred Schrumpf a Home Econ teacher from Maine for accidentally creating brownies when she forgot to add baking powder to a cake she was making for her class. The first known recipe for brownies appeared in the Sears catalog in 1897.

Americans prefer milk chocolate; Europeans prefer dark chocolate.

It is said that a chocolatier who can make it in Belgium can make it anywhere else in the world. There are more than 2,100 chocolate shops in tiny Belgium.

The world's largest chocolate chip cookie, from North Carolina, weighed 37,000 pounds & was 107 feet across. The largest chocolate heart, from Spain, weighed nearly 8 tons.

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