

# *A Primer on Handling Hispanic Cheeses*

*FDA Southeast Region Annual Food Safety  
Seminar*

*Orange Beach, Alabama*

*November 7-10, 2011*

# *Question 1*

- *How many pounds are there in one gallon of whole milk?*

## *Question 2*

- *Is it a requirement to pasteurize milk to make cheese?*

## *Question 3*

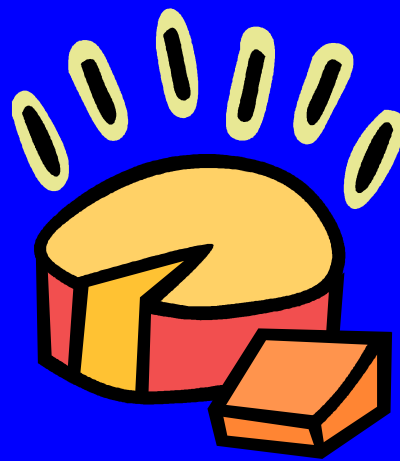
- *What animal does real mozzarella cheese come from?*

## *Question 4*

- *How many gallons of milk make one pound of cheese?*

# *History... What is Cheese?*

- A concentrated dairy food made from milk, is defined as the fresh or matured product obtained by draining the whey (moisture or serum of original milk) after coagulation of casein, the major milk protein. Casein is coagulated by acid, which is produced through the addition of select microorganisms and /or by coagulating enzymes, resulting in curd formation. Milk may also be acidified by adding food grade acidulants, which is the process often used in the manufacture of fresh cheese.*

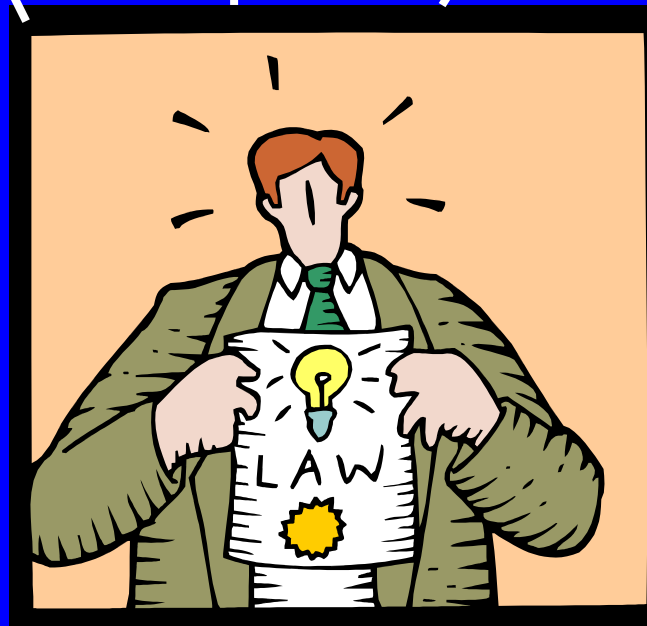


## 21 CFR 1240.61

# *Mandatory Pasteurization for All Milk and Milk Products...*

- No person shall cause to be delivered into interstate commerce...any milk or milk product in final package form ..unless the product has been pasteurized....*

*Fresh Cheese (Queso Fresco)*      *Hispanic Cream*      *Soft Cheese (Queso Blanco)*      *Hard Cheese (Cotija)*



*Except!*  
*21CFR 133*

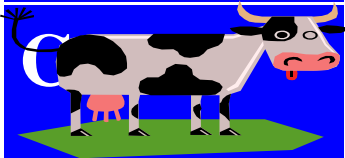



- *Where alternative procedures to pasteurization are provided for by regulation, such as in 21 CFR 133-  
Cheeses And Related Cheese Products.*

## *Continue Exception*

*If the dairy ingredients used are not pasteurized, the cheese is cured at a temperature of not less than 35 degrees Fahrenheit for at least 60 days.*

***!!!!!!!This is Currently being evaluated!!!!***

# Composition of Milk From Various Animals

Animal	Protein	Fat	Carbohy drate	Ash
Human	1%	4.5%	7%	0.2%
 C Cow	3.5%	3.7%	4.8%	0.7%
 B Bison	4.0%	7.5%	4.8%	0.7%
 G Goat	3.6%	4.1%	4.7%	0.8%
 S Sheep	4.6%	7.2%	4.8%	0.8%

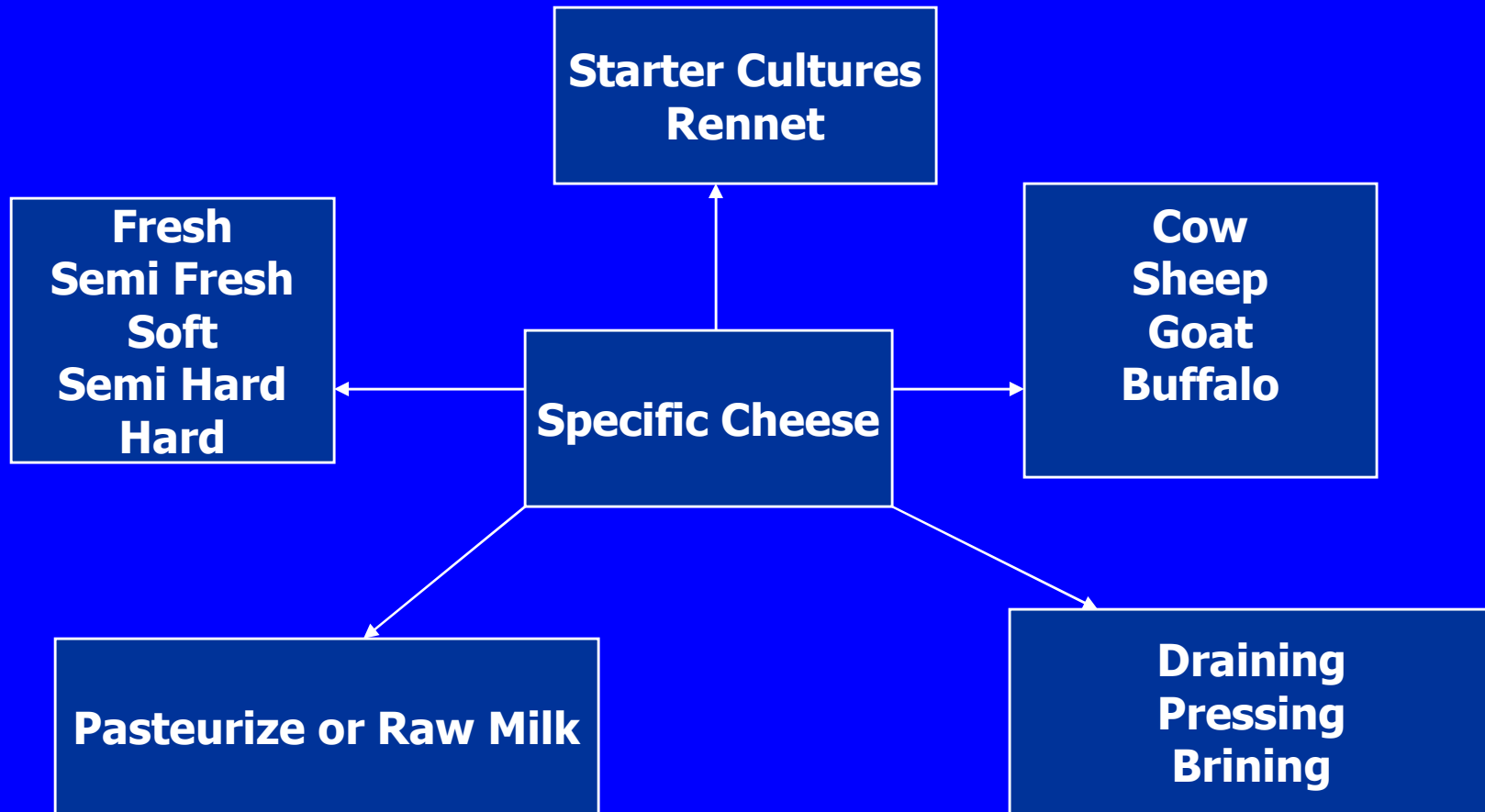
# *Cheese*

- *Whole*
- *2% reduced fat*
- *1% lowfat*
- *Skim or fat-free*
- *Combination of above*



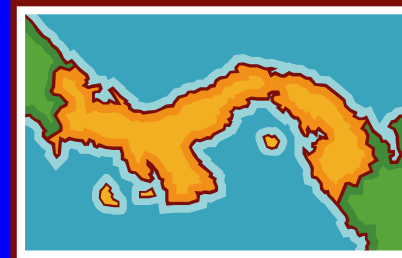
# Cheese Varieties

## Ingredients/Processes/Aging



# Hispanic Population in The U.S.

- Divide all Hispanic races
  - Mexico
  - Central America
  - South America
  - Caribbean Islands (Puerto Rico, Dominican Republic, Cuba)



# Hispanic Population

- In 2000, the Hispanic population totaled 35 million, which carried 12.6% of the total population.
- In 2003 this share was up to 14% and the population reached 39 million, and established as the largest minority group in the U.S. In 2004 reached 40 million.
- In 2050, the Hispanic share of the U.S. population is expected to reach 24% (1 out of four people).

## *21 CFR 133*

- *133.148 “Hard Grating Cheeses”*
- *133.150 “Hard Cheeses”*
- *133.182 “Soft Ripened Cheeses”*
- *133.187 “Semisoft Cheeses”*
- *133.188 “Semisoft Part-Skim Cheeses”*

## *21 CFR 133*

- *133.148 “Hard Grading Cheeses”*
  - *Not more than 34% moisture*
  - *Not less than 32% milkfat*
  - *Not less than 6 months*

## *21 CFR 133*

- *133.150 “Hard Cheeses”*
  - *Not more than 39% moisture*
  - *Not less than 50% milkfat*
  - *If not pasteurized then cured less than 60 days @ not less than 35°F.*

## *21 CFR 133*

- *133.182 “Soft Ripened Cheeses”*
  - *Not less than 50% milkfat*
  - *If not pasteurized then cured less than 60 days @ not less than 35°F.*

## *21 CFR 133*

- *133.187 “Semisoft Cheeses”*
  - *More than 39% but not more than 50% Moisture*
  - *Not less than 50% milkfat*
  - *If not pasteurized then cured less than 60 days @ not less than 35°F.*

## *21 CFR 133*

- *133.188 “Semisoft Part -Skim Cheeses”*
  - *Not more than 50% Moisture*
  - *Not less than 45% but less than 50% milkfat*
  - *If not pasteurized then cured less than 60 days @ not less than 35°F.*

# Latino Countries

## Types of Hispanic Cheeses



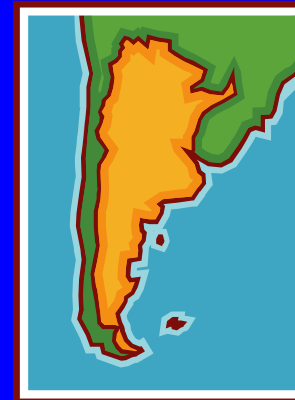
# Latino Cheeses

- Caribbean Islands
  - Cuba, Puerto Rico\* & Caribbean Descent
    - Queso Blanco Fresco
    - Queso Blanco\*
    - Jicotea



# Latino Cheeses<sup>1</sup>

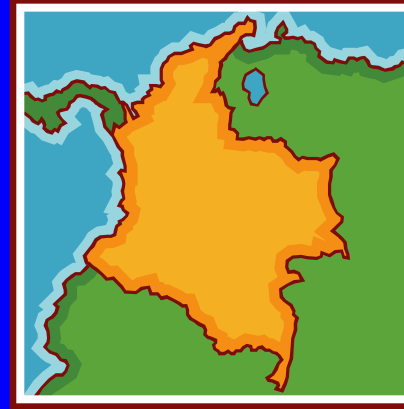
- South America
  - Argentina
    - Reggianito
    - Sardo
    - Mar de Plata Cheese



<sup>1</sup>List of Cheeses From Wikipedia Encyclopedia

# Latino Cheeses<sup>1</sup>

- South America
  - Colombia
    - Queso Campesino (Farmer's Cheese from highland cows milk)
    - Queso costeño
    - Quesillo
    - Queso Paipa



<sup>1</sup>List of Cheeses From Wikipedia Encyclopedia

# Latino Cheeses<sup>1</sup>

- South America
  - Chile
    - Chanco
    - Gauda
    - Mantecoso
    - Panquehue
    - Ranco
    - Renaico



<sup>1</sup>List of Cheeses From Wikipedia Encyclopedia

# Latino Cheeses<sup>1</sup>

- Central America
  - Nicaragua
    - Quesilo



<sup>1</sup>List of Cheeses From Wikipedia Encyclopedia

# Latino Cheeses

- Central America
  - San Salvador
    - Queso Duro Blando
    - Queso Duro Blando con Loroco (Flower)
    - Queso Seco
    - Crema
    - Quesillo
    - Cuajo De Terrón
    - Renaico



# Latino Cheeses

- Central America
  - Guatemala & Honduras
    - Queso Blanco
    - Queso Seco





# 2006

U.S. Census Bureau

## United States

	Estimate	Margin of Error
<b>Total:</b>	<b>299,398,485</b>	<b>*****</b>
<b>Not Hispanic or Latino</b>	<b>255,146,207</b>	<b>+/-10,602</b>
<b>Hispanic or Latino:</b>	<b>44,252,278</b>	<b>+/-10,603</b>
<b>Mexican</b>	<b>28,339,354</b>	<b>+/-87,068</b>
<b>Puerto Rican</b>	<b>3,987,947</b>	<b>+/-48,136</b>
<b>Cuban</b>	<b>1,520,276</b>	<b>+/-30,458</b>
<b>Dominican (Dominican Republic)</b>	<b>1,217,225</b>	<b>+/-35,099</b>
<b>Central American</b>	<b>3,372,090</b>	<b>+/-56,573</b>
<b>South American</b>	<b>2,421,297</b>	<b>+/-42,518</b>
<b>Other Hispanic or Latino</b>	<b>3,394,089</b>	<b>+/-46,494</b>

Source: U.S. Census Bureau, 2006, American Community Survey

# *Mexican Cheeses*

## *Fresh Cheeses (Unripened)*

- *Queso Blanco*
- *Queso Fresco*
- *Queso Panela*
- *Requeson*



# *Mexican Cheeses*

## *Soft Cheeses*

- *Queso Añejo*
- *Queso Oaxaca (Quesillo)*



# *Mexican Cheeses*

## *Semi-Soft Cheeses*

- *Queso asadero (used to make queso fundido)*
- *Queso chihuahua/menonita*
- *Queso jalapeño*



# *Mexican Cheeses*

## *Semi-Firm Cheeses*

- *Queso criollo*
- *Queso edam*
- *Queso manchego*



# *Mexican Cheeses*

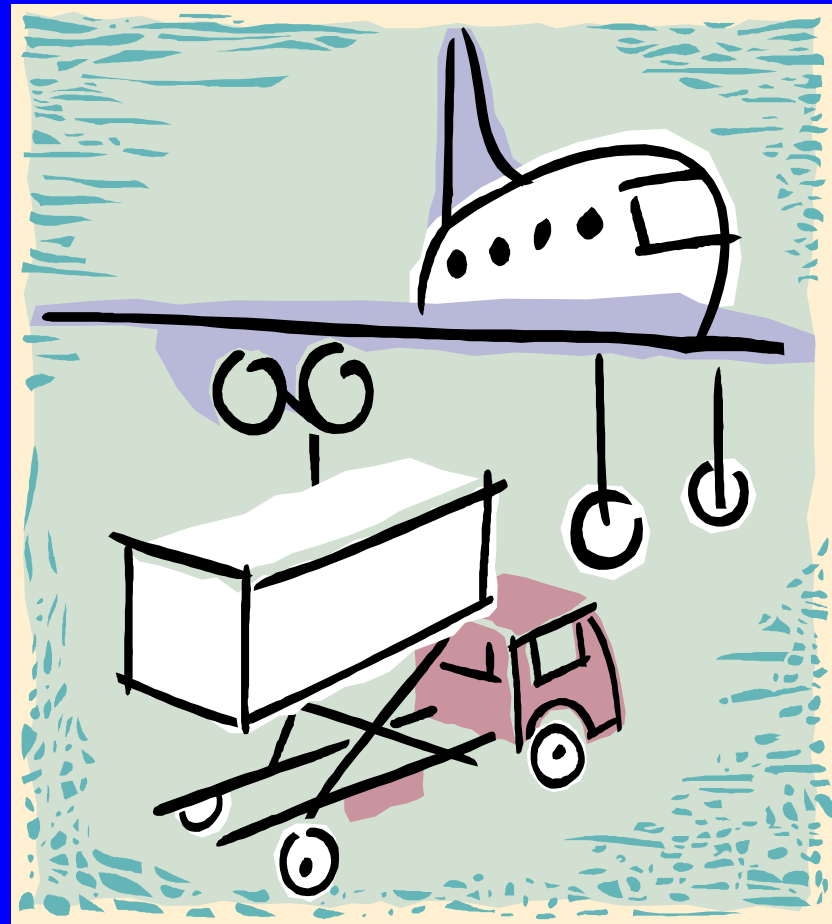
## *Firm Cheeses (Hard)*

- *Queso añejo enchilado*
- *Queso cotija*
- *Queso manchego viejo*



# Illegal Imported Cheese (Implications and Effects)

- Foreign Dairy Farms
- Lack of Regulatory Oversight (Foreign)
- Facilities without any regulatory oversight (Foreign)
- Recipes that require raw milk (No pasteurization)
- Passengers Imported for Personal Use



# Alleged For Personal Usage?

- Approximately 50 Pound Blocks
- Cardboard Cases In 1/2 Pound Individual Blocks
- Quantities Greater Than 10 Pound Stored In Suit Cases

# Atlanta International Airport



# Atlanta International Airport



# Atlanta International Airport



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