



OLIVES

Presented By: N.S
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BOTANICAL DESCRIPTIONS

- Botanical name:- *Olea europaea L*
- Family :- *Oleaceae*

PLANT



- Evergreen tree
- Over 130 varieties
- Average Height 40 ft
- Can be kept to 20ft with regular pruning
- Spread about 30ft
- Leaves are small(1.5” long ,1/4”-1/2” wide)
- Leaves live about two years
- Life expectancy 500-1000 years



**Matured olive tree-
about 500years old-
Italy**



FLOWERS



- Small
- Off white in color
- 15-20 Flowers on a axial

FRUIT



- Fruit is a drupe
- Color is green when immature
- Color is changing to purple or black at full maturity





FRUIT

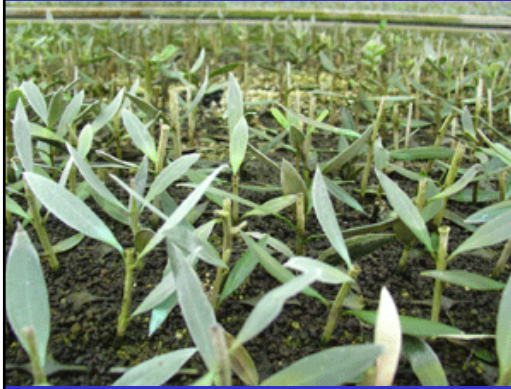


- Fruit is a drupe
- Color is green when immature
- Color is changing to purple or black at full maturity
- Requires 6-8 months for full maturity

SOILS & CLIMATE

- Grown on wide variety of soils
- Tolerant of high PH, salinity, excess boron and drought.
- Supremely adapted to Mediterranean climates
- Can not tolerate high humidity

Propagation



- Cuttings
 1. Softwood cuttings
 2. Hardwood cuttings
- Own root
- Budding
- Seedling (not very common)

Planting

- In traditional olive grooves
 - * Usually comprises of large trees
 - * Scattered at irregular distance
 - * May be few as 10 trees/acre or not more than 40 trees /acre
- Intensive orchards
 - * Typically planted at 30' -40' at all directions
 - * About 40-60 trees/acre



- Super high density orchards
* 100 trees/acre



Harvesting

- Still made on a traditional way
- Modern techniques use machines that shake the trees
- Each olive tree produces an average 15 to 50 kg of olives
- Depending on variety and pressing method ,a litre of olive oil requires between 4-6kg of olives.



Origin (Mythological)

- According to the ancient Greek history, Poseidon, god of the sea and Athena goddess of peace and wisdom , dispute over the whose name would be given to the newly built city, in the land of Attica. To end this dispute it was decided that the city would be named after the one who offered the most precious gift to the citizens.



- Poseidon struck his trident on a rock and salt water began to flow. Athena struck her spear on the ground and it turned in to a olive tree. It was decided that the olive tree was most valuable to the people of Attica , hence city was named Athens in honor of Athena.

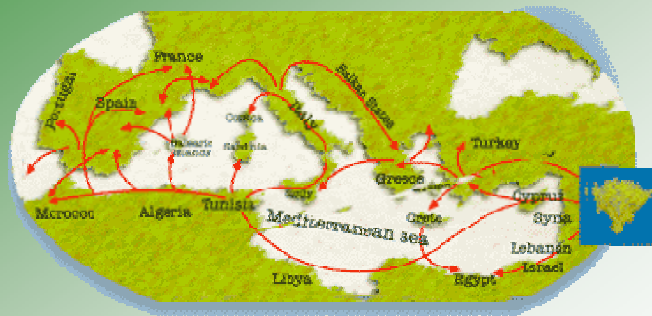
- Even today, an olive tree stands where it took place. It is said that all the olive trees in Athens were descended from the first olive tree.



Origin, History of cultivation

- Originated in south Asia Minor and it is believed that spread from Syria towards Greece .

The origin and expansion of the olive tree



Origin and History

- Originated in south Asia Minor and it is believed that spread from Syria .
- The olive was spread throughout Mediterranean Europe and North Africa very early.
- Olive leaf fossils have been found in Pliocene deposits at Mongardino Italy & findings in Spain proves that existence of olive tree back to twelfth millennium B.C.
- Fossilized olive trees which are 50000-60000 years old were found in volcanic rock of santorini in Greece.
- Earliest references olive oil use and international trade date to 2000-3000B.C.

Origin and History (Cont.)

- The olive played an important role in the life in Athens, the cradle of western civilization.
- In 4th Century B.C. Solons of Athens regulated the planting of olive trees.
- Athenians represented Athena having an olive wreath on her helmet an amphora with oil or branch of olive tree.

**Athena
having
Olive
Wreath
her
helmet**



Gold wreath of olive leaves (3rd Century B.C. –Greece)



Storage large jars-Around 1500B.C. -Greece



Amphora -
4th century
B.C. -Greece



Knossos Palace- Crete-Greece
Storage large jars
Around 1600B.C.

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- The sculpture of Zeus, one of the seven wonders of the ancient world, in Olympia had also a wreath of olive branches..

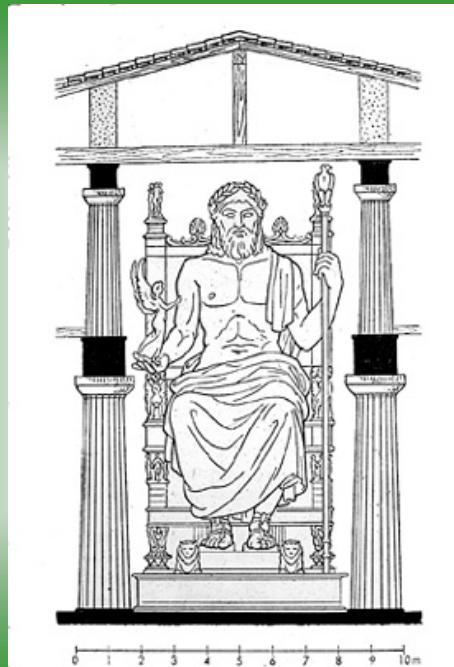
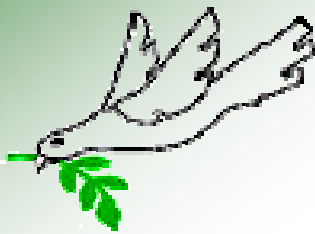


Fig. 38: The Zeus of Phidias (reconstructed by Adler).

Origin and History (cont.)

- Olive had a direct connection with sports activities. The athletes of ancient games had the habit of smearing their bodies with olive oil before exercising in gymnasiums in order to maintain the elasticity of their muscles.
- The leafy branches of trees crown the victorious athletes in ancient Olympia.
- According to the Hippocratic code of medicine which mentioned 60 therapeutic uses of treating diseases and ailments

Origin and History (cont)



- Several references are made to olive , olive lamps in the Bible.
- The 1st mention of the olive tree in the Bible is when the dove from Noah’s ark came back from dry land – the dove had a fresh olive leaf from Mount Ararat in its beak. That is how olive is associated with peace.
- “Everyday Jesus went to the temple to teach and each evening he returned to spend the night on the mount of olives”
- “At the mount of olives where Jesus wept over Jerusalem,spoke parables, predicted what was come and and betrayed by Judas.

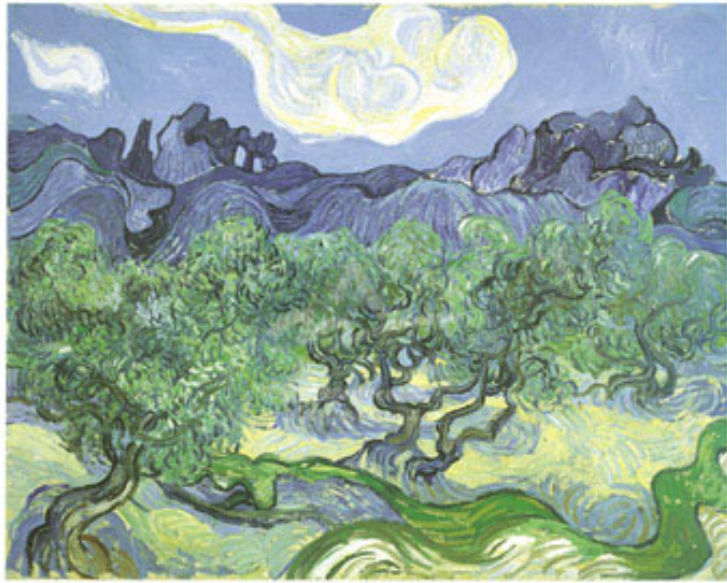
Origin and History (Cont)



- Spiritually, olive oil symbolizes anointing and power of the Holy spirit. Throughout the new testament Jesus used olive oil in parables that distinguish the Holy spirit in action.
- The Christians continued the ancient custom of using olive in the burial ceremony.
- Being the sacred symbol of life, it is used in every important ceremony- birth , marriage & death
- Art has been influenced as well by strong presence of olive tree in the Greek region.

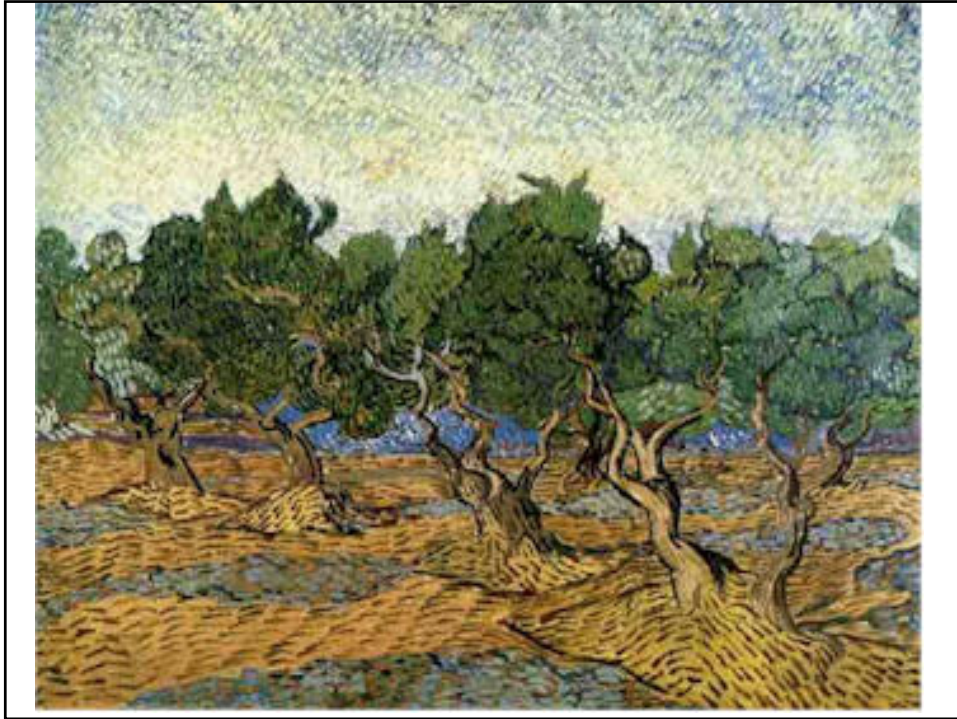
Olive
Harvesting-
Ancient
Artwork
On a vas





Vincent van Gogh The Museum of Modern Art, New York





Origin,History of cultivation(Cont)

- Olives were cultivated in ancient times for
 1. Lamp fuel
 2. Cooking
 3. Dietary fat

as there were few substitutes at that time



World is held on *olive*
branches of peace

SYMBOL OF UN

USES OF OLIVE

Medicinal uses of olive



Olive leaf

- Used for centuries to treat wounds, hemorrhoids, to cleanse the liver, to reduce fever, as a general antiseptic
- Some modern uses for olive leaf extract include treating chronic fatigue, coughs, malaria, prostate difficulties and parasites
- It also treats things such as athlete's foot, botulism, hepatitis, pneumonia, bladder infections and long list of other afflictions, all related to the cause of bacteria and viruses etc.

Medicinal uses of olive (cont.)

Olive bark

- Used in ancient times to make an infusion to treat wounds



Medicinal uses of olive (cont.)

Olive oil



- Protective to digestive tract
- Keep the heart and arteries healthy and flexible
- Prevent a build up of cholesterol in arteries.
- As a monounsaturated fat, it helps lower the bad (LDL) cholesterol numbers.
- Is a good carrier for any essential oil
- Rubbed daily into patches of eczema, dandruff & psoriasis can reduce itching and speed healing
- Keep skin soft and supple

Other uses

1. As a food

- (I). Green olive
- (ii) Ripe olives



- (iii) Olive Oil



Nutritional composition (per 100g edible portion)

	Oil (7.1 tbsp =100g)	Green olives	Ripe olives
Water(%)		75.2	71.8
Calories	884	13.2	191
Protein(%)		1.5	1.8
Fat(%)	100	13.5	21
Carbohydrate(%)		4	2.6
Fiber(%)		1.2	1.5

Nutritional composition (per 100g edible portion)

	% RDA	Oil (7.1 tbsp =100g)	Green olives	Ripe olives
Vitamin A		0	7.5	1.5
Thiamin, B1		0	0	0
Riboflavin,B2		0	0	-
Niacin		0	-	-
Vitamin C		0	-	-
Calcium		0	10.9	10.9
Phosphorus		0	2.1	2.1
Iron		0	16	16
Sodium		<1	55.8	22.8
Potassium		<1	0.1	<0.1

RDA-Recommended daily allowance

Other uses

2. As a cooking oil

- It is wonderful for frying foods at high temperatures because it has higher smoking point (410 F) than most others.
- It is the only oil which preserve & protect the true taste of the the that is fried.
- It is economical because it increases its volume upon being heated.
- Can be reuse easily after filtering



Other uses(Cont)

3. Livestock feeding

Olive pomace oil and residual after extraction of olive-pomace oil is used for livestock feeding.

4. Lighting purposes

Use to light the lamps at the religious places



5. For carvings

The olive wood is kept for few years outdoors in the sun until it becomes very dry and good for carvings

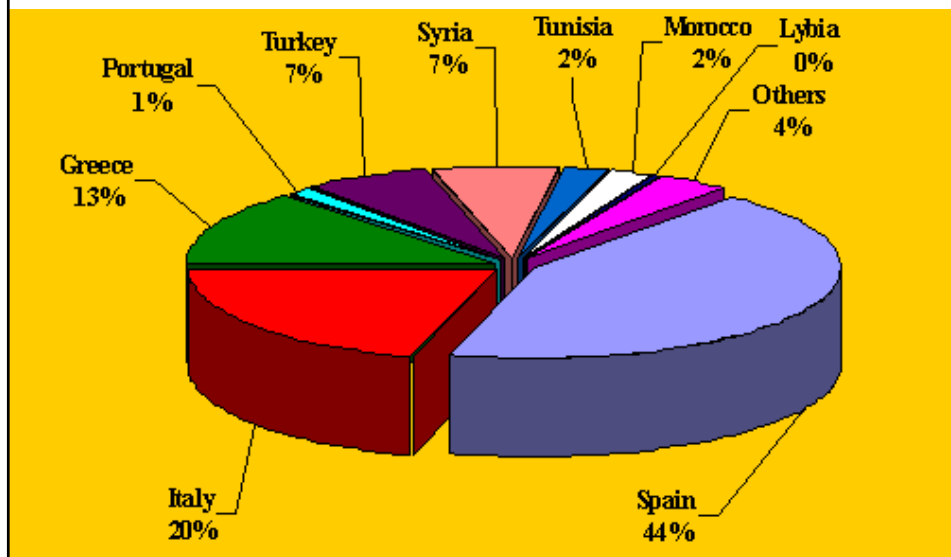


World olive production

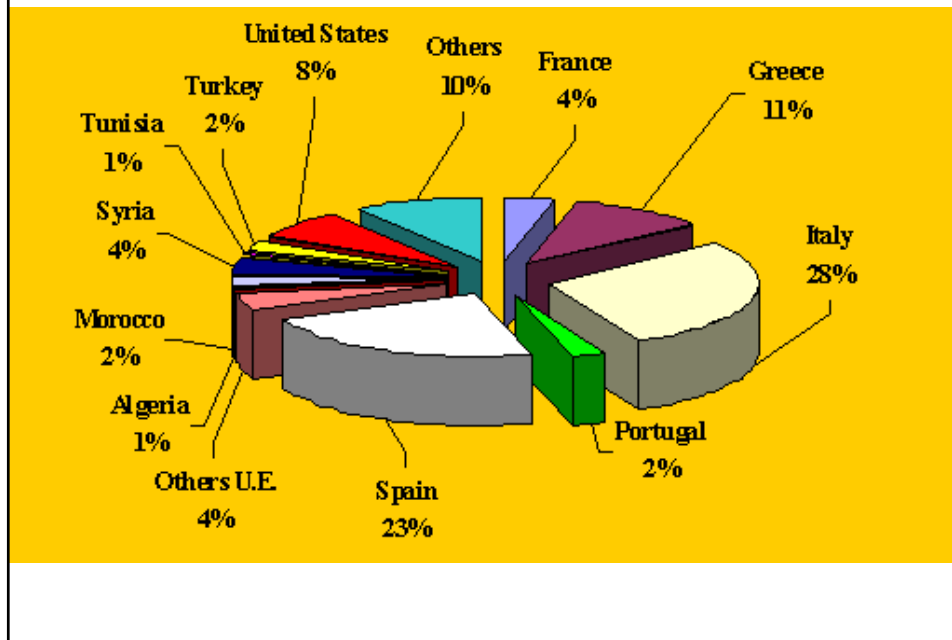
- Olives produced in 39 countries
- But 95% of the production from seven (07) countries.

Country	%
Spain	44
Italy	20
Greece	13
Turkey	7
Syria	7
Tunisia	2
Morocco	2

WORLD OLIVE OIL PRODUCTION



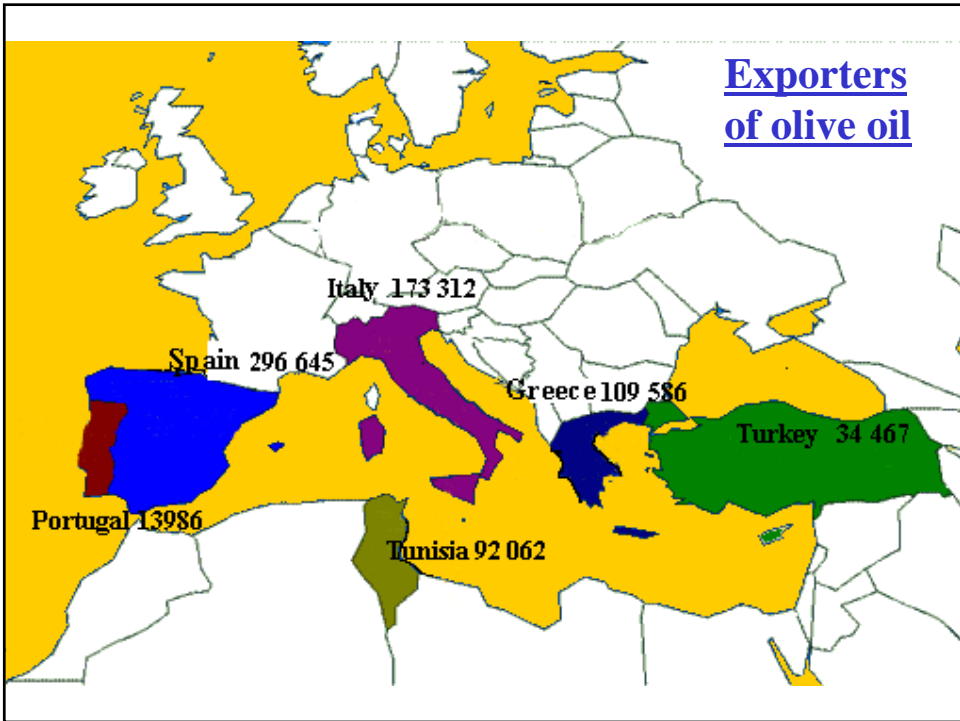
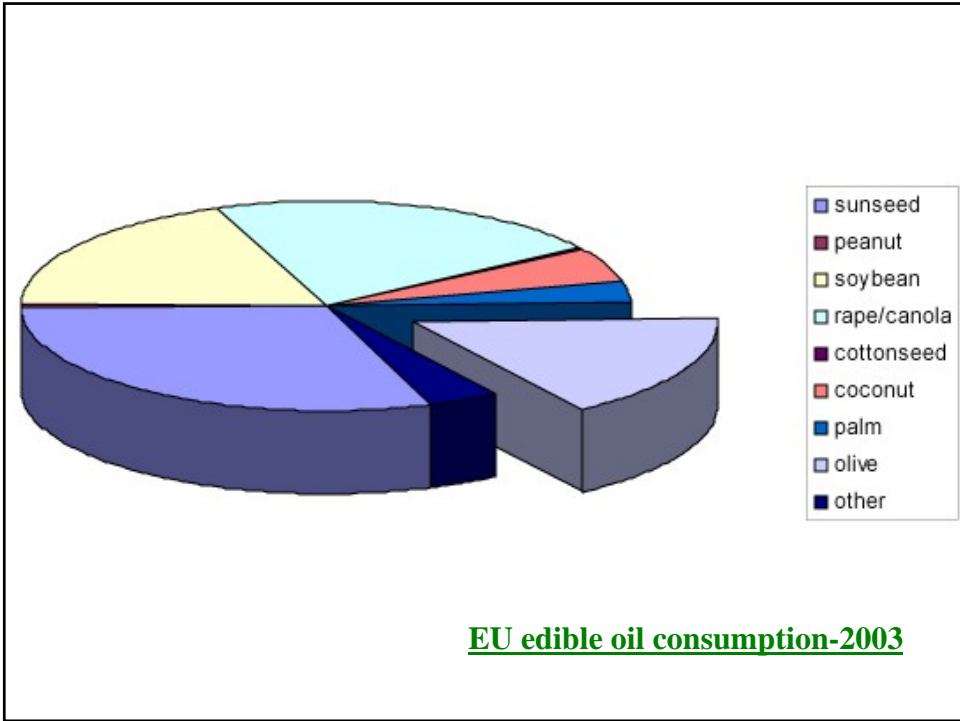
World olive oil consumption

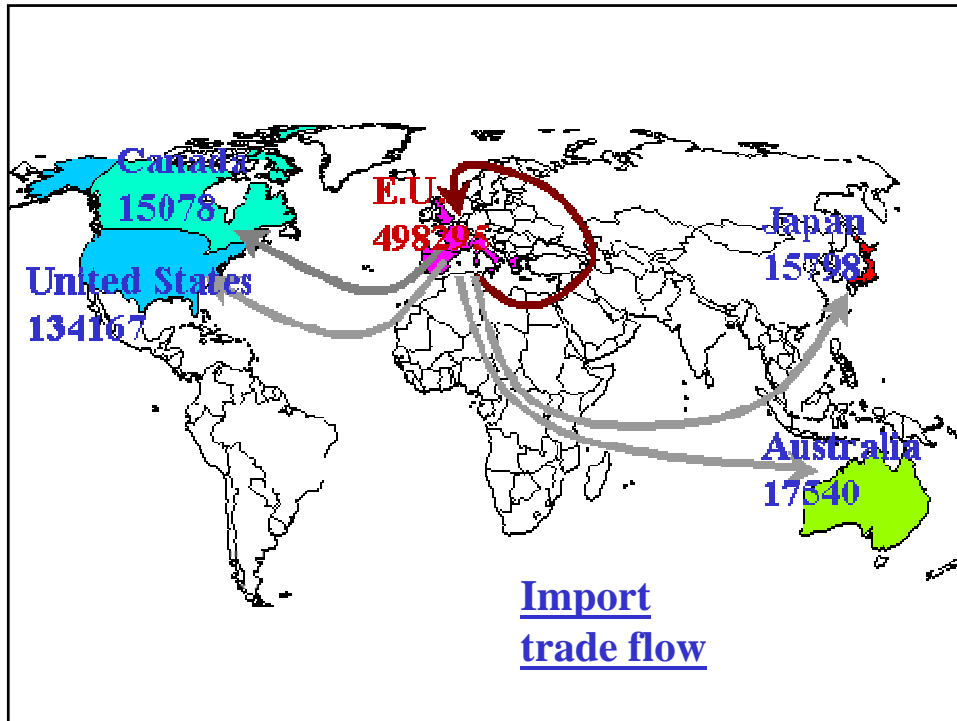


Per capita consumption of olive oil

- Greece >17 liters
- Spain >12 liters
- Italy > 10 liters







References

1. www.oliveoilsource.com
2. www.uga.edu
3. www.internationaloliveoil.org

Thank You