

Section	By	Time	Content	
Introduction	David L.	5	Welcome Napa MG background Overview of workshop Bathroom / no breaks	Website / Help Desk Demo Garden / Books Become a MG
Welcome		5	Attendee Questions - List on parking	Today's presenters
History	David K.	5		
<b>I. Selection</b>				
Choosing the right olive tree	David L.	5	Purpose - Fruiting or non-fruiting Use - oil, curing or both Number of trees Flavor	Cold hardiness Ripening Pollination
<b>II. Planting</b>				
A. Planting (site) requirements	David L.	10	Climate Site history Soil profile Soil chemistry	Water availability Water quality
B. Planting guidelines		10	When How Training	
<b>III. Growing</b>				
A. Fertilization	Carole	25	What to apply When to apply	
B. Irrigation			How much When	
C. Pruning			When How	Shape
D. Mulching			What to apply	
E. Soil				
<b>IV. Pests and Disorders</b>				
A. Olive Fruit Fly	David K.	20	Infestation Monitoring Management options	Control Prevention Spraying to remove flowers
B. Peacock Spot and Cercospora		5	Symptoms Management options	
<b>V. Harvest</b>				
A. Curing Olives	David L.	5	Methods	
B. Health effects	David K.	5		
C. Olive Milling	David K.	5	Sources	
<b>Wrap Up</b>				
Q & A	David L.	15	Review questions on easel	
		<b>120</b>		

## Yearly Calendar - A Basic Guide to Olive Trees

	January	February	March	April	May	June	July	August	September	October	November	December	
<b>Tree planting</b>				Best time					2nd best time if frost is not a concern				
<b>Olive Development</b>					Bloom		Pit hardening			Verasion	Fruit ripening		
						Fruit set							
<b>Operations</b>		Soil nutrient analysis									Harvest		
			Leaf tissue analysis										
				Foliar fertilization					Granular fertilizer and/or compost application				
			Check irrigation	Irrigation - monthly deep watering.									
		Pruning					Pruning and suckering						
<b>Pest and Disease Management</b>				Monitor olive fruit fly									
							Spray GF-120 (Olive Fruit Fly)						
			Monitor for scale/apply horticultural spray										
		Gopher and vole control											
		Copper spray (peacock spot)										Copper spray (peacock spot)	

OLIVE TREE GROWING RESOURCES

<b>I. Selection</b>	
Varieties for Planting in the Home Garden	<a href="http://homeorchard.ucdavis.edu/plant_olive.pdf">http://homeorchard.ucdavis.edu/plant_olive.pdf</a>
Olive Varieties and Maturity - Paul Vossen, UCCE	<a href="http://cesonoma.ucdavis.edu/files/27177.pdf">http://cesonoma.ucdavis.edu/files/27177.pdf</a>
Tree Selection - Olive Oil Source	<a href="http://www.oliveoilsource.com/page/tree-selection">http://www.oliveoilsource.com/page/tree-selection</a>
<b>II. Planting</b>	
UC Davis Olive Center - Best Practices	<a href="http://olivecenter.ucdavis.edu/learn/best-practices-1">http://olivecenter.ucdavis.edu/learn/best-practices-1</a>
Planting Olive Trees - Devarenne & Nemcik	<a href="http://ucanr.edu/sites/scmg/files/30942.pdf">http://ucanr.edu/sites/scmg/files/30942.pdf</a>
Planting Olive Trees - Paul Vossen, UCCE	<a href="http://cesonoma.ucanr.edu/files/27176.pdf">http://cesonoma.ucanr.edu/files/27176.pdf</a>
Olive Tree Planting - Olive Oil Source	<a href="http://www.oliveoilsource.com/page/olive-tree-planting">http://www.oliveoilsource.com/page/olive-tree-planting</a>
<b>III. Growing</b>	
Fertilizing Olive Trees - Paul Vossen, UCCE	<a href="http://cesonoma.ucanr.edu/files/27175.pdf">http://cesonoma.ucanr.edu/files/27175.pdf</a>
Integrated Weed Management - UC IPM	<a href="http://ipm.ucdavis.edu/PMG/r583700111.html">http://ipm.ucdavis.edu/PMG/r583700111.html</a>
Olive Weed Control - Paul Vossen, UCCE	<a href="http://cesonoma.ucdavis.edu/files/27178.pdf">http://cesonoma.ucdavis.edu/files/27178.pdf</a>
Pruning Tall or Neglected Olive Trees - Paul Vossen, UCCE	<a href="http://cesonoma.ucdavis.edu/files/27267.pdf">http://cesonoma.ucdavis.edu/files/27267.pdf</a>
Pruning Olive Trees - Paul Vossen, UCCE	<a href="http://cesonoma.ucanr.edu/files/27277.pdf">http://cesonoma.ucanr.edu/files/27277.pdf</a>
<b>IV. Pests and Disorders</b>	
Olive Fruit Fly Pest Note - UC IPM	<a href="http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74112.html">http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74112.html</a>
Olive Fly Control - Olive Oil Source	<a href="https://www.oliveoilsource.com/page/olive-fly-control">https://www.oliveoilsource.com/page/olive-fly-control</a>
Olive Fruit Fly - Vossen, Varela & Devarenne	<a href="http://cesonoma.ucdavis.edu/files/27231.pdf">http://cesonoma.ucdavis.edu/files/27231.pdf</a>
Peacock Spot - UC IPM	<a href="http://www.ipm.ucdavis.edu/PMG/r583100311.html">http://www.ipm.ucdavis.edu/PMG/r583100311.html</a>
Cercospora - UC IPM	<a href="http://www.ipm.ucdavis.edu/PMG/r583100511.html">http://www.ipm.ucdavis.edu/PMG/r583100511.html</a>
Peacock Spot and Cercospora Foliar Diseases on Olive - Paul Vossen, UCCE	<a href="http://cesonoma.ucanr.edu/files/27173.pdf">http://cesonoma.ucanr.edu/files/27173.pdf</a>
<b>V. Harvest</b>	
Olives: Safe Methods for Home Pickling	<a href="http://anrcatalog.ucanr.edu/pdf/8267.pdf">http://anrcatalog.ucanr.edu/pdf/8267.pdf</a>
<b>General</b>	
Organic Olive Production Manual	UC ANR Publication 3505
Olive Production Manual	UC ANR Publication 3353
Olive Fruit Facts - CA Rare Fruit Growers	<a href="https://www.crfg.org/pubs/ff/olive.html">https://www.crfg.org/pubs/ff/olive.html</a>
The California Backyard Orchard	<a href="http://homeorchard.ucanr.edu/Fruits_&amp;_Nuts/Olive/">http://homeorchard.ucanr.edu/Fruits_&amp;_Nuts/Olive/</a>
UCCE Sonoma County - Olives	<a href="http://cesonoma.ucanr.edu/SpecialtyCrops/OLIVES/">http://cesonoma.ucanr.edu/SpecialtyCrops/OLIVES/</a>

## COMMON OLIVE TREE CULTIVARS

Varietal	Country of Origin	Description	Local Grower (1)	Cold Hardiness	% Oil	Fruit Size	Polyphenol Content (2)	Oil Flavor	Table or Oil
Arbequina	Spain	The fruit is small. Its oil is quite aromatic and fruity with very little pungency or bitterness. It has a short shelf life of about one year.	DW FW NV	Hardy	22-27	Small	Low	Mild	Oil
Arbosana	Spain	Fruit looks very much like Arbequina fruit, and the tree originates from the same region, but it matures about three weeks later and the foliage is slightly different in color. Overall, it is about 25% less vigorous than Arbequina, but re-growth from pruning cuts is more vigorous. The oil from Arbosana is more pungent and bitter than Arbequina; it is also quite fruity and pleasant. Since this variety is relatively new, there is a lack of historical data on quality and performance.	DW FW	Hardy	23-27	Small	Medium - High	Strong	Table
Ascolana	Italy	Mainly used for table olives. The fruit is large. It is the most cold hardy of all table varieties in California. The oil is very aromatic but the yield is very low.	FW NV	Hardy	15-22	Large	Medium	Mild	Table
Coratina	Italy	Late-ripening cultivar that loves long hot growing seasons where it slowly produces excellent, large fruit. This variety can be strongly bitter and pungent if harvested green. Although it is used commercially for oil production, the Coratina olive can be picked as a green table olive. The dense, spreading Coratina tree features medium vigor. This variety is not recommended for cooler coastal locations where early frosts may occur.	DW FW NV	Sensitive	23-27	Medium	Very high	Strong	Oil
Frantoio	Italy	Often used as one of the main ingredients in gourmet olive oil production. The yield is quite high and the flavor is strong, with some pungency. Good container plant.	FW NV	Sensitive	23-26	Medium	Medium - High	Strong	Oil

Koroneiki	Greece	Primary oil variety of Greece with well-recognized quality characteristics, very heavy fruit set, but very small fruit. Oil is very high in polyphenols, generally quite green in color, very fruity with an emphasis on herbal-green fruitiness, and it has medium bitterness and pungency. It has a long shelf life of two or more years.	DW FW NV	Sensitive	24-28	Very small	Very high	Strong	Oil
Leccino	Italy	Used in gourmet olive oil blends. Its flavor is also strong. The yield is high. It ripens a little earlier than other varieties. Good container plant.	FW NV	Hardy	22-27	Medium	Medium	Mild	Oil
Manzanillo	Spain	Main variety used for the black "California-style" olive. The fruit matures early and has a medium oil content. The oil is mild. The trees are susceptible to cold injury, peacock spot, and olive knot. Good container plant.	DW FW NV	Sensitive	15-26	Large	High	Medium	Both
Maurino	Italy	Used in olive oil blends. The oil is very flavorful and spicy.	FW NV	Hardy	20-25	Medium	High	Mild	Oil
Mission	Mexico	Dual-purpose (table and oil) variety. The fruit is medium-sized and matures late. The oil content is high. The oil flavor varies from very bitter to quite mild depending on the maturity at harvest. Trees are very cold tolerant and grow quite tall.	DW FW	Hardy	19-24	Medium	High	Medium	Both
Pendolino	Italy	Often used as a pollinizer. Though small, produces a moderate amount of good quality oil with a very mild flavor, low bitterness and delicate pungency. Good landscaping tree.	DW FW NV	Hardy	20-25	Medium	Medium	Mild	Oil
Picholine	French	Elongated fruit with light green skin changing to wine red then red-black when ripe. Pulp is fleshy, firm-textured. Tree is vigorous, medium sized and bears heavy crops.	FW NV	Moderate	22-25	Medium	High	Strong	Oil
Picual	Spain	Highly productive, early variety. Easy to harvest and contains a high content of easily separated oil with pungent flavor that stores well. Popular table olive known to be high in beneficial chemicals such as oleic acid and Vitamin E	DW NV	Hardy	24-27	Medium	Very high	Strong	Both

Sevillano	Spain	Very large fruit and is generally used as a table olive. It has several minor problems. The oil yield is very low although the oil is very sought after, with a mild but very fruity flavor. Perfect for curing Sicilian style. Makes a great stuffing olive.	FW NV	Hardy	12-17	Very large	Low	Mild	Both
Taggiasca	Italy	Hails from Liguria. The small to medium olives yield a light, fine oil with a delicate almond flavor. For eating, the olives are cured black. They have a sweet buttery taste. Mature tree has average size and vigor, with a semi-weeping habit. Very late ripening. Leaves are green-gray on top, silver on bottom.	FW NV	Sensitive	22-27	Medium	Low	Mild	Table

(1) DW = Dave Wilson, FW = Four Winds, NV = Novavine

(2) Polyphenol content - a class of antioxidants found in olive oil, red wine, green tea, chocolate, and more. Olive oil has more than 30 different polyphenols that are dissolved in oil, not water. These are strong antioxidants and radical scavengers, and reduce cardiovascular risk factors. They also have anti-inflammatory and antimicrobial conditions and chronic diseases, including skin and digestive problems, low-grade inflammation and age-related diseases, obesity and weight loss, metabolic syndrome neurodegenerative diseases.