

Propagation Addendum

Table 1. Effect of cultivar and substrate/rate combination, on number of primary roots, total root length (cm) including all roots longer than 5mm, and rooting percentage for propagated olive cuttings grown for 116 days (2019) and 95 days (2020) days in a heated greenhouse in Dayton OR, 2019 and 2020 (n = 256).

Treatments	No. of primary roots	Total root length (cm)		Rooting percentage
		Cultivar		
Year		Leccino	Picual	
2019	5	16 b <sup>z</sup>	28 a	0.68 a
2020	4	19 ab	19 ab	0.52 b
Cultivar				
Leccino	3 b	18		0.56
Picual	6 a	24		0.64
Substrate-Rate				
Peat:Perlite 1:1 <sup>y</sup>	6 a	31 a		0.7
Peat:Perlite 3:7	4 ab	22 b		0.63
Coir:Perlite 1:1	4 ab	17 bc		0.59
Coir:Perlite 3:7	3 b	13 c		0.48
Significance				
Year (Y)	NS	NS		0.0364
Cultivar (C)	<0.0001	0.0129		NS
Substrate-Rate (S)	0.0451	<0.0001		NS
Y × C	NS	0.0129		NS
Y × S	NS	NS		NS
Y × C × S	NS	NS		NS

<sup>z</sup>Means separation by Tukey's HSD at  $P \leq 0.05$ .

<sup>y</sup>Substrate ratios are given in terms of volume:volume ratio.

<sup>x</sup> $P$  value provided unless nonsignificant (NS;  $P > 0.05$ .)

Table 2. Effect of cultivar and hormone/rate combination, on number of primary roots, total root length (cm) including all roots longer than 5mm, and rooting percentage for propagated olive cuttings grown for 98 days in a heated greenhouse at the North Willamette Research and Extension Center, Aurora OR and in Dayton OR, spring 2020 (n = 192).

Treatments	No. of primary roots	Total root length (cm)	Rooting percentage	
Site				
NWREC	4a <sup>z</sup>	25a	0.74a	
Dayton	2b	15b	0.49b	
			Hormone-Rate <sup>y</sup>	
Cultivar			2D	3H
Leccino	2b	14b	0.75a	0.25b
Picual	5a	26a	0.81a	0.65a
Hormone-Rate				
2D	4a	24a	0.78	
3H	2b	15b	0.45	
Significance <sup>x</sup>				
Site (S)	0.0021	0.0007	<0.0001	
Cultivar (C)	<0.0001	0.0014	0.0004	
Hormone-rate (H)	0.0005	0.0008	<0.0001	
S × C	NS	NS	NS	
S × H	NS	NS	NS	
C × H	NS	NS	0.0098	
S × C × H	NS	0.0076	NS	

<sup>z</sup>Means separation by Tukey's HSD at P ≤ 0.05.

<sup>y</sup> Hormone-rate combinations included: Dip n Grow 2000ppm IBA + 1000ppmNAA ("2D") and Hormex 3000ppm IBA ("3H".)

<sup>x</sup>P value provided unless nonsignificant (NS; P > 0.05.)



Propagation set up in Yamhill County Oregon in October 2020, demonstrating a low-input system without mist. Plastic domes are placed over the plants to keep humidity levels high. WSARE grant funding paid for heat mats, rooting hormone and potting supplies for this olive grower.



'Picual' and 'Leccino' olives grown for the substrate trial at a grower site in Yamhill County July 2020.



Evaluation in August 2020 of 'Picual' and 'Leccino' olives in the compilation trial in grown at the North Willamette Research and Extension Center.