



Ο.Ε.Φ. ΑΓΡΟΤΙΚΟΣ ΣΥΝΕΤΑΙΡΙΣΜΟΣ
ΜΕΣΟΛΟΓΓΙΟΥ ΝΑΥΠΑΚΤΙΑΣ
« Η Ε Ν Ω Σ Η »
ΟΜΑΔΑ ΠΑΡΑΓΩΓΩΝ
ΕΛΙΑΣ ΚΑΙ ΕΛΑΙΟΛΑΔΟΥ

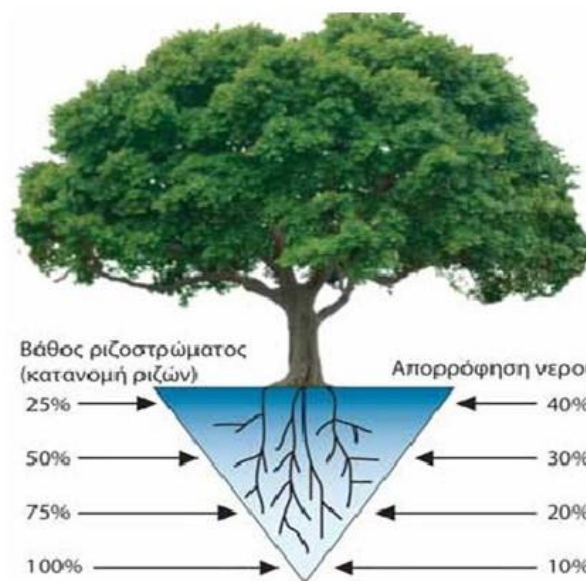
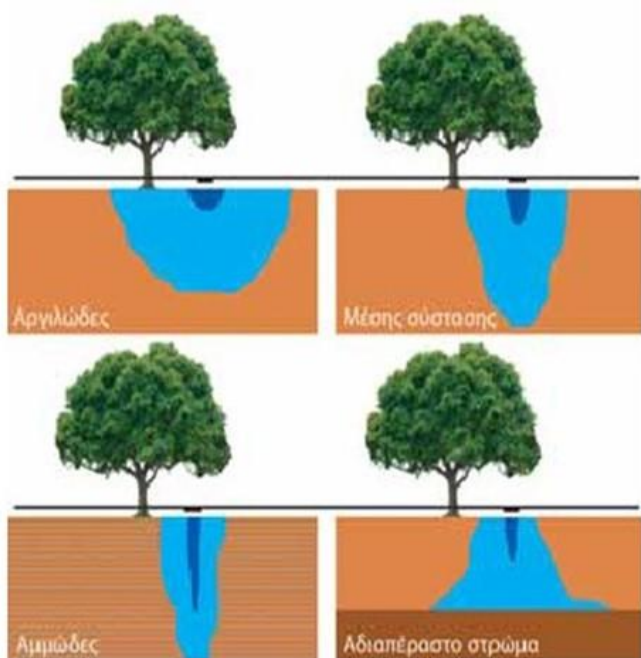
ΕΓΧΕΙΡΙΔΙΟ

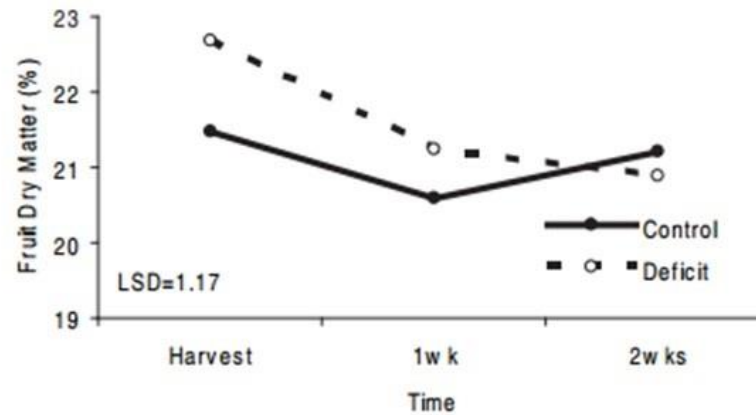
Θεματική Ενότητα:

“ΔΙΑΧΕΙΡΙΣΗ ΑΡΔΕΥΣΗΣ”

Πρόγραμμα συγχρηματοδοτούμενο από την
ΕΕ και την Ελλάδα Καν (ΕΕ) 611/2014 και 615/2014
δράση Γ.iii.1-3 του εγκεκριμένου προγράμματος με
την υπ’ αριθμ. 1802/36612-31.03.2015 Απόφαση του
Υπουργείου Παραγωγικής Ανασυγκρότησης
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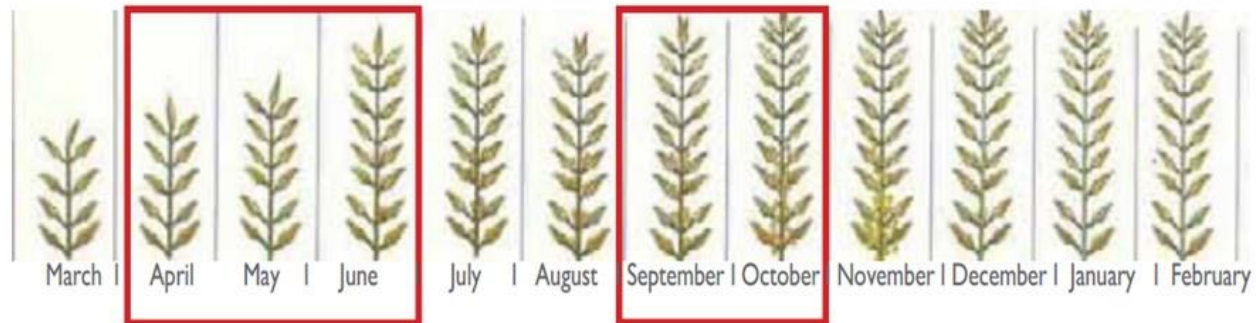






Effect of deficit irrigation on fruit dry matter (%) from Konservolea olives at harvest and after 1 and 2 weeks storage at 5°C.

Critical stages for irrigation under Mediterranean conditions



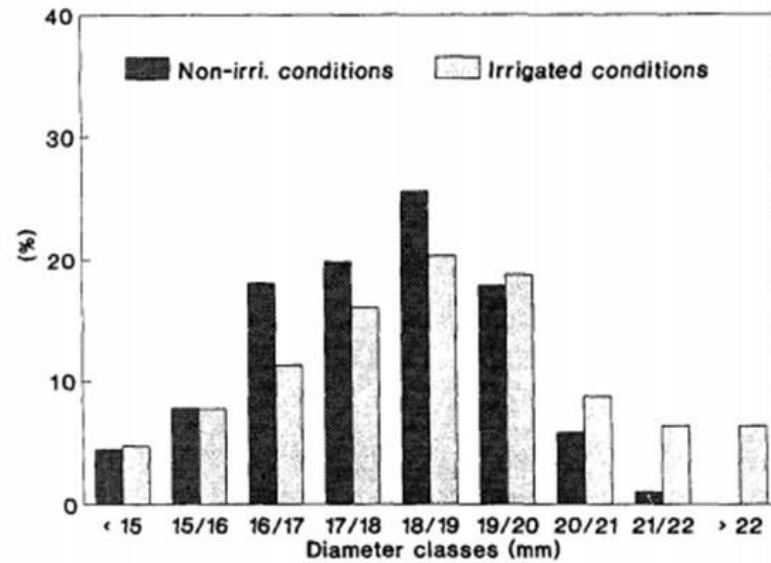
IRRIGATION OF YOUNG ORCHARDS

During the first three years, irrigate every 3-7 days. Increase water quantities and irrigation frequency as temperatures rise and transpiration is accelerated. Decrease again towards the beginning of winter.

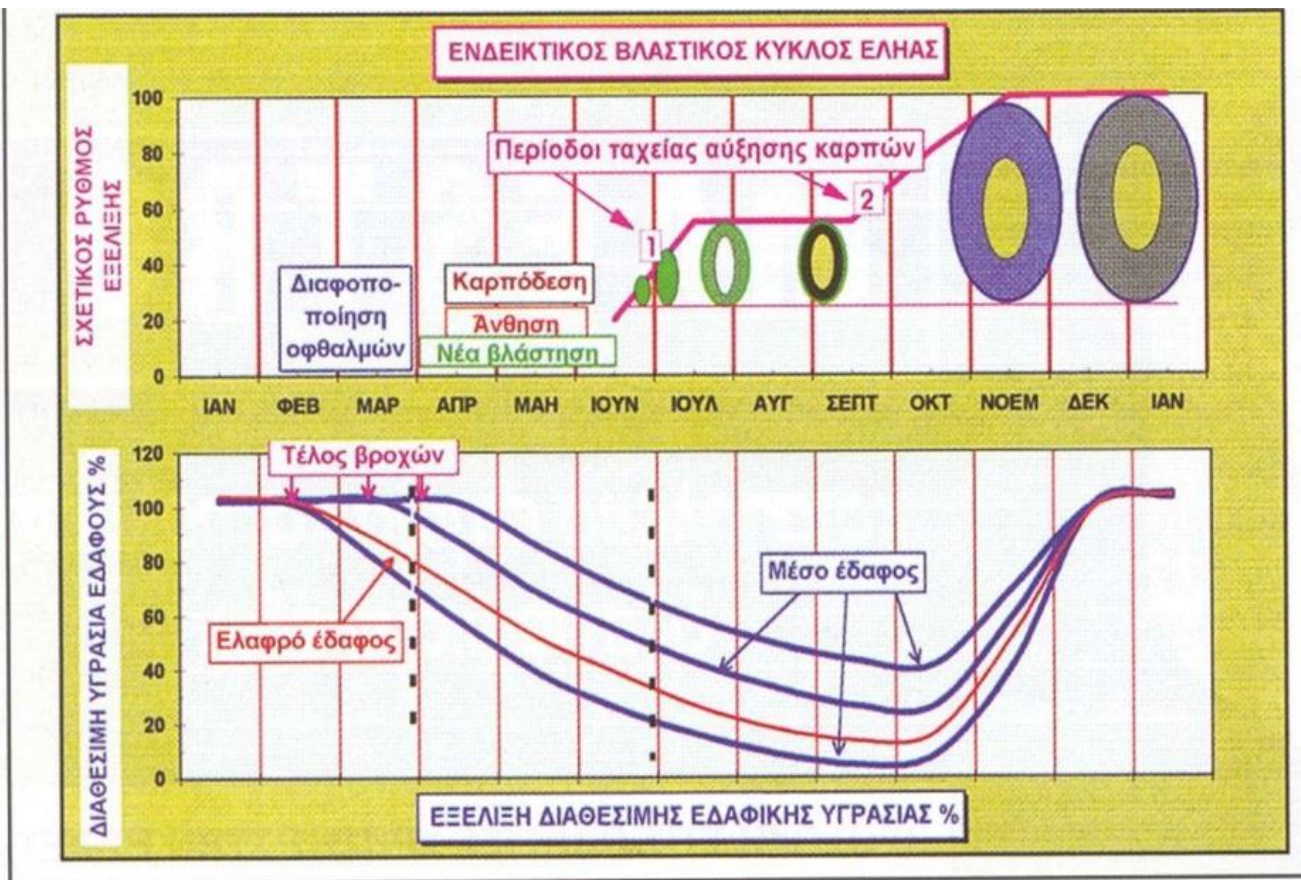
First year: 5-10 liters/tree/day

Second year: 7-20 liters/tree/day

Third year: 15-40 liters/tree/day



Effect of irrigation on percentage of marketable table olive (*Olea europaea*) fruits in relation to their size at harvest (13 Oct).



Σχηματική παράσταση του βλαστικού κύκλου της ελιάς σε σχέση με την εξέλιξη της διαθέσιμης υγρασίας εδάφους κατά την διάρκεια του έτους.

CROP COEFFICIENTS FOR MATURE OLIVE PLANTATIONS

Crop type	Required water quantities	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Table olives	Full irrigation	0.4	0.4	0.5	0.5	0.55	0.55	0.55	0.4
	Supplementary	0.35	0.35	0.3	0.3	0.5	0.55	0.45	0.2
Olives for oil production	Full irrigation	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.2
	Supplementary	0.18	0.27	0.1	0.1	0.2	0.15	0.15	

* Based on Mediterranean data

Daily water requirements can be calculated by multiplying daily evaporation by crop coefficient:

Daily evaporation (mm) X Crop coefficient = Daily water requirements (mm)

Site, region	Latitude	ET ₀	Rainfall	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
		(mm)	(mm)									
Bibbiona, Tuscany	43° 16 N	1 000	772 (30-year mean)	-	-	-	0.60	0.55	0.65	0.65	-	-
Metaponto, Basilicata	40° 22 N	1 270	492	0.7	0.65	0.6	0.55	0.5	0.5	0.6	0.65	-
Sassari, Sardinia	40° 42 N	-	-	-	0.55	0.5	0.5	0.5	0.5	0.5	0.55	-
Cordoba, Andalusia	37° 50 N	1 420 (mean of 3 years)	639 (mean of 3 years)	0.65	0.6	0.55	0.55	0.5	0.5	0.55	0.6	0.65
Fresno, California	36° 44	-	-	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	-
Benevento, Campania	41° 06 N	1 240 (20-year mean)	714 (20-year mean)	-	-	-	0.65	0.65	0.65	0.65	-	-
Recommended values, clean cultivated	-	-	0.45 * to 0.75	0.45 to 0.75	0.5 * to 0.65	0.55	0.55	0.5 to 0.55	0.5 to 0.55	0.55 to 0.6	0.6 to 0.65	0.6 to 0.65

* In winter and spring only, the low K_c applies to dry, cold climates, while the high K_c applies to areas frequently wetted by rainfall.

Monthly water consumption and accumulated water consumption. Average of drip irrigation treatment results for 2006-2010.

	A pr	M ay	Jun	Jul	au g	Se pt	Oct	No v	SU M
Net Water Consumption m ³ /h	21 4	43 5	63 6	73 5	59 0	38 6	20 3	20 3	32 88
Accumulate Water Consumption m ³ /ha	21 4	64 9	12 85	20 20	26 10	29 96	31 99	32 88	32 88
daily Water Consumption m ³ /h	7	14	21	24	19	13	7	3	
Avg irrigation m ³ /he	23 8	23 6	23 9	23 7	23 6	23 0	23 1	-	33 07
No of irrigation times	1	2	3	3	3	1	1	-	14

Monitoring morphology of olive trees.

Monitoring morphology	Drip	Sprinkler	Border	Ring
The average number of new branches	85	83	81	82
The average length of the new branches (cm)	25	23	20	20
The average new diameter branches (cm)	1.4	1.3	1.2	1.3
Increase diameter steam height 40 cm	0.68	0.66	0.66	0.65

Irrigation effects on yield, fruit mean weight, oil content and oil yield in each experimental year

Irrigation level ^a	Fruit yield		Fruit mean weight (g)	Oil content (% FW)	Oil yield (kg ha ⁻¹)
	(g tree ⁻¹)	(no. tree ⁻¹)			
<i>1997</i>					
T ₀	5130	987	5.2	19.5	550
T ₁	6605	1325	5.0	19.5	708
T ₂	8550	1595	5.4	18.4	865
T ₃	8670	1489	5.8	18.7	892
LSD _{0.05} ^b	2908	297	0.6	ns	204
<i>1998</i>					
T ₀	3401	980	3.5	19.2	359
T ₁	6462	1471	4.4	19.7	700
T ₂	9108	1857	4.9	19.5	977
T ₃	12056	2215	5.0	20.1	1333
LSD _{0.05} ^b	3058	1100	0.5	ns	328.0

^a T₀=rainfed control; T₁, T₂ and T₃=irrigated treatments with 33, 66 and 100% of ETc, respectively.

^b Last significant difference ($P=0.05$) test.



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Εκπόνηση:

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