

WaterWise Landscape Irrigation Calculator										
Copyright© 2001-2003 WaterWise Council of Texas (Rev A)										
Website: www.waterwisetexas.org		Table 1 - Plant Adjustment Factors ⁴								
Site Location:		Plant Type			Typical (Range) ⁵					
Month:		A. Trees, Groundcover			0.5 (0.2-0.9)					
Rainfall:	in./month	B. Shrubs, Perennials			0.5 (0.2-0.7)					
¹ Reference ET:	in./month	C. Cool Season Turfgrass, Annuals			0.8 (0.6-0.8)					
Water Rate:	\$/1000 gallons	D. Warm Season Turfgrass			0.6 (0.3-0.6)					
² Rainfall Factor:	Percent (estimated)	⁴ NOTE: For drought-tolerant plants, use lower end of above range								
³ Effective Rainfall:	in./month	⁵ NOTE: Always consult with local extension service or other agency for best factor to use								
Zone or Hydrozone ¹⁰	Plant Type (See Table 1)	Plant Adjustment Factor (See Table 1)	Landscape Area (square feet)	Plant Water Requirement ⁶ (inch)	Irrigation Water Requirement ⁷ (inch)	Irrigation Water Volume (gallons)	Irrigation Water Cost (\$)	Zone Precipitation Rate (inch/hour)	Monthly Runtime ⁸ (min./month)	Weekly Runtime ⁹ (min./week)
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
Landscape Total:										
¹ Note: Reference Evapotranspiration is based on a cool-season grass (referred to as the "ETo" reference).										
² Note: A Rainfall Factor is the estimated percentage of rainfall that enters the root zone and will contribute to the overall plant water requirement.										
³ Note: Effective Rainfall = (Rainfall Factor x Rainfall amount) / 100 and is the estimated amount of rainfall that will contribute to plant water needs.										
⁶ Note: Plant Water Requirement is the overall water need of the plant.										
⁷ Note: Irrigation Water Requirement is the amount of water to be supplied by the irrigation system and expects a "relatively good" irrigation system. Such a system will have a "relatively good" distribution uniformity with a resulting irrigation system rating (ISR) of 7 on a scale of 1 to 10 with 10 being best.										
⁸ Note: Monthly Run Time is the number of minutes per month to run the zone. IMPORTANT: When calculating a Run Time for an irrigation system with an installed and working rain shut-off device, be sure to set the Rainfall Factor to zero. The controller will be scheduled as if there will be no rainfall, but if there is, then the shut-off device will override and inhibit the controller; thus, reducing the actual run time.										
⁹ Note: Weekly Run Time is calculated from a 30-day month, and thus will be slightly less (about 1%) if the month has 31 days.										
¹⁰ Note: Precipitation Rate, Monthly and Weekly Run Times apply only to zones. Remaining calculations can be based on either zones or hydrozones.										
For more information about the science of landscape irrigation, see: www.irrigation.org										