



Irrigation Scheduling Tools

Free online tools from the Irrigation Water Management Society: www.iwms.org

- Sprinkler Calculators: Create custom schedules
- Daily Irrigation Index & Weekly Watering Forecast—**sign up for email notifications**
- Water Budget Calculator: Check your water bills

Month-by-Month Watering Schedules for the Seattle Area

These schedules assume *there is a rain shut-off device on the system.*

* **Multiple cycles**
or run times reduce runoff and increase the amount of water that is absorbed into the soil. If runoff continues with two run times, break the total run time into three or four cycles. Divide total minutes by number of start times to get number of minutes to program into controller.

MONTH	DAYS PER WEEK	LAWN—TURF GRASS			PERCENT ADJUST**
		MINUTES* PER WATERING DAY			
		<u>ROTOR</u> Heads	<u>SPRAY</u> Heads	<u>ROTATOR***</u> Nozzles	
May	2	26 (2 cycles of 13 mins.)	10 (2 cycles of 5 mins.)	38 (2 cycles of 19 mins.)	70%
June	3	26 (2 cycles of 13 mins.)	10 (2 cycles of 5 mins.)	38 (2 cycles of 19 mins.)	80%
July	4	26 (2 cycles of 13 mins.)	10 (2 cycles of 5 mins.)	38 (2 cycles of 19 mins.)	100%
Aug	4	26 (2 cycles of 13 mins.)	10 (2 cycles of 5 mins.)	38 (2 cycles of 19 mins.)	80%
Sept	3	26 (2 cycles of 13 mins.)	10 (2 cycles of 5 mins.)	38 (2 cycles of 19 mins.)	60%

** Or use the current Watering Forecast at www.iwms.org.

***Rotator or rotary nozzles can be retrofitted on most spray heads. These nozzles have a lower precipitation rate, which increases runtimes, and typically provide more even coverage.

MONTH	DAYS PER WEEK	SHRUBS / PERENNIALS			PERCENT ADJUST**
		MINUTES* PER WATERING DAY			
		<u>ROTOR</u> Heads	<u>SPRAY</u> Heads	<u>ROTATOR***</u> Nozzles	
May	2	34 (2 cycles of 17 mins.)	14 (2 cycles of 7 mins.)	52 (2 cycles of 26 mins.)	70%
June	2	34 (2 cycles of 17 mins.)	14 (2 cycles of 7 mins.)	52 (2 cycles of 26 mins.)	80%
July	2	34 (2 cycles of 17 mins.)	14 (2 cycles of 7 mins.)	52 (2 cycles of 26 mins.)	100%
Aug	2	34 (2 cycles of 17 mins.)	14 (2 cycles of 7 mins.)	52 (2 cycles of 26 mins.)	80%
Sept	2	34 (2 cycles of 17 mins.)	14 (2 cycles of 7 mins.)	52 (2 cycles of 26 mins.)	60%

How to Program a Sprinkler Controller

Step 1: Create a Watering Schedule

- Identify which group of heads is controlled by each zone (station) in the controller. Just turn each one on with the manual start function on the controller. Write down the zone number, the general type of plant material and heads. For example: Zone # 1 – lawn/rotors, Zone #2 shrubs/sprays, Zone #3 annuals/drip, etc. Use the irrigation runtime calculators on www.iwms.org to develop a watering schedule.

Before starting Step 2, please read the following about the basic features on sprinkler controllers:

- Programs:** The multiple program feature (program A, B, C, etc.) allows users to group zones with similar watering needs, such as Program A for lawns (plants with shorter root zones need to be watered more frequently through the week), Program B for trees and shrubs (typically needs deeper watering less often) or Program C for drip installations (only needs one deep watering every few weeks). **Programs describe start-times and days of the week only.** For example, all the zones that water lawn areas can be grouped together on program A so that all the lawn areas can have two start times, one at 6 AM and one at 6:30 AM, and be scheduled to water Monday, Thursday and Saturday. The number of minutes scheduled for each zone is programmed individually (see the last bullet of Step 2), which allows for a more customized watering schedule even though the number of start times and days per week are the same for a specific plant material. Program B could then be customized for trees and shrubs to water on Tuesdays and Fridays with three start times and Program C could be reserved for areas watered with drip that only need one long watering on Sundays.

Programs	Start times – at least two for everything except drip zones	Days per week
A - Lawn	5:30 AM, 6:30 AM	Mon., Thur., Sat.
B - Shrubs	5:30 AM, 6:30 AM, 7:30 AM	Tues., Fri.
C - Drip	5:30 AM	Sun.

- Cycling or multiple start times:** This is a very important feature that will not only reduce or eliminate runoff but also help get the water to the root zone. Say the sprinkler calculators show a turf with spray heads watering schedule of 10 minutes (2 cycles of 5) per day of watering. Multiple start times or the Cycle and Soak feature on controllers allows the user to break up the 10 minute watering into two 5 minute “cycles” by inputting two start times at 6 AM and 6:30 AM. “Wetting and Waiting” breaks the soil tension and allows successive watering to easily penetrate the soil when one long one would create run-off. Caution: Multiple start times are established in Programs. Be sure to divide the total number of minutes you want the zone to run per day (two 5 minute runs, instead of one 10 minutes run) by the number of start times entered on the Program or you’ll water more than wanted.
- Water Budget, Seasonal Adjust or Percent Adjust:** This is a very convenient feature that allows you to change your watering times by a percentage across all zones. Set your controller with peak watering schedules and use the percent adjust feature to decrease and increase watering run times as the weather changes. Plants need different amounts of water during the irrigation season. The longer the days the more water a plant will need. As the days grow shorter, plants typically need less water. Visit www.iwms.org to sign up for the Daily Irrigation Index or the Weekly Watering Forecast email service to receive daily or weekly index reminders.

Step 2: Input Run-times & Schedules into the Controller

- Set each Program with start times and days per week. Move the Program switch to A and turn the dial to Start Times. Add the times you want the controller to run (for example, start time 1 at 5 AM and start time 2 at 6 AM). While still on Program A, move the dial to Days of the Week and choose the days you want the system to come on. Do the same for the other programs if you have plant material that needs a different watering strategy.
- Switch back to Program A, move the dial to the first zone and add the number of minutes calculated with the sprinkler calculators. Be careful to divide the number of minutes by the number of start times (5 minutes instead of 10 for two start times) so you don’t accidentally water more than needed. Once all the zones for Program A are scheduled, move the Program key to B and C, if needed, and do the same. Check to make sure you didn’t schedule the same zone on two or more programs or that zone will water for both programs.
- Set the percent adjust the Daily Irrigation Index, Weekly Watering Forecast or Monthly Historical Index found on www.iwms.org. Some controllers allow you to set a percentage for each Program or by month. Check by moving the Program switch to A, B, C and D to see if the adjusted percentage can be changed for each program. If not, you will only need to set the percentage once to affect all the programs.
- Set controller back to Run.