



Yard Inconsistencies

Hi. I'm Kevin McCaleb. As I mentioned in the previous video, not all landscapes are the same. Likewise, the sprinkler systems that do the watering. In many cases, we find that the landscape has been changed or remodeled, but the sprinkler system has not been adjusted. These alterations or lack thereof can leave us trying to water different plants that often have different watering needs, using the same sprinklers, and that is never easy nor efficient. The difference of the water needs of grass and the water needs of shrubs or flowers can be substantial. And trying to satisfy the needs of both with one line of sprinklers is very difficult and inefficient to say the least. Remodeling or upgrading your current sprinkler system to water those individual areas or the areas with similar plantings is by far the best method to use. But this can be expensive and may not be practical.

In this video, I will address some of the more common issues and show you how to make some adjustments that will help to compensate for these inadequacies. These techniques, while helpful, will only be as effective as the time and attention you are willing to devote to implement them into your regular yard maintenance schedule. For this video, you will need only a notepad, something to write with, and your own two eyes to observe. So let's start with one of the more common problems, and one of the simplest to remedy: different types or models of sprinklers on the same line. Not all sprinklers are alike, nor are they designed to do the same job. Different models have different functions. For example, some sprinklers are designed to distribute a certain or set amount of water, which we call a precipitation rate, over a given area. The amount of area covered can vary greatly from manufacturer to manufacturer and even the types of sprinklers themselves will vary. So if you have a variety of different types of sprinklers on one line, it will be difficult to distribute that water evenly.

To identify if you have this situation, watch as the water is applied by each sprinkler on a given station. Does the water come out in a steady fan shape? Does it use a single stream that moves back and forth in a circle across the lawn? Does it have a single stream with rhythmic interruptions or ticks as it moves over and back? It may have a group of individual streams that move in a circular motion. The sprinklers may be of different manufacturers. If you can read the markings on the top, they will tell you if they are indeed the same. The shape of the sprinklers may vary. All of these are indicators. While the sprinklers are running, and using the examples above, check each station to see if they all put water out the same way. If they don't, chances are you have mixed sprinklers.

Mixed sprinklers will result in your landscape receiving different amounts of water in different areas. Consequently, you may end up running your sprinklers too long in one area to get sufficient water onto another: runoff in one place, dry spots in another, and all on the same station. Each zone may be different, but they can all be managed more effectively if the sprinklers on each line are the same. Decide which of your sprinklers to replace and which ones to keep, and make those changes. When finished, you'll need to recalculate the gallons per minute like we did on video 2, and change that number on your worksheet.

Another common mistake that I see is mixing a drip system with a conventional irrigation sprinkler system. This is a very common practice, combining drip systems, which are typically low water, with conventional sprinkler systems. The short explanation for why this is incorrect is that drip systems are

very low pressure systems, and they deliver water in gallons per hour, while a conventional irrigation system is rated in gallons per minute. What that means is that if you run a station that uses sprinklers that deliver water at two gallons per minute each, and have that connected to a drip system that has emitters delivering water at two gallons per hour each, then in a 20 minute cycle, each sprinkler on the same line will put down considerably different amounts of water. That's about 40 gallons of water from one sprinkler, as compared to about $\frac{2}{3}$ of a gallon from the drip emitter. So as you can see, a huge difference in the water volume.

As you can see, it's both difficult in inefficient to water everything correctly when mixing different systems. There is a solution to this problem, however. You can either number 1 split the lines into two different watering zones, each with its own valve (remember to calculate the gallons per minute used when you complete this as we did in video 2), or number 2, you can commit to watering the conventional way with just one type of sprinkler system, and supplement the plantings in the drip area by hand if necessary.

Another mistake I see frequently are lines of sprinklers that water shrubs and flowers at the same time they water lawn. Either the turf or the shrubs will inevitably get too much or too little water based upon which plant type is in the focus. There are two methods you can use to remedy this. One is to water only for the shrubs. Shrubs, especially natives, typically require the least frequent and deepest watering. Here's the commitment. You can either let the lawn go brown, which will mean it is not perfect. It will not die, nor likely even go dormant. Or you can supplement and water it by hand with a hose or periodic sprinkler system. The second method is the reverse. We allow the sprinklers that water the grass to continue, but cap or remove those sprinklers in the shrub areas. You will have to supplement the shrubs by hand. Both of these methods will allow you to manage the appropriate amount of water to your shrubs and grass without overwatering or underwatering. Remember, once you have decided which method is best for you and have made the changes, you'll need to recalculate the water use on these zones and enter those new numbers on your worksheet in video 2.

You may find that your landscaped areas are zoned properly. Shrubs and turf are separated. But the shrubs and/or the flowers inside the planting beds are mixed as to their water needs. If you are able to, replace or exchange the plants in the beds so that they are similar to each other. If you can't or choose not to do this, then set your water times for the ones that require the least amount of regular water and take care of the others by hand.

As you can see, in most of these cases, a simple decision to commit to one plant type or the other is all that's required to make your irrigation more efficient. In the next video, we'll create a watering schedule that combines everything we've learned so far.

If you'd like more information on using water efficiently, check out the other videos on ConserveH2O.org.