Rainwater Harvesting

Harvesting rain water is something I've always wanted to do. Unfortunately, the wife and I were caught in the, "I think we are going to move, no wait, I think we'll stay and remodel" phase for a number of years. Now we are firmly in the, "We are staying and remodeling" camp. This works to my benefit... finally.

I managed to find a used rain barrel on Craig's List a few months ago. Go figure I find one right before winter.

C'est la vie.

Now, I've always wanted to use and install a Rainwater H2OG system, but they run about $200 for a 50 gallon container.

Ouch.

The one I got off of Craig's List is 50 gallons as well and is found at Tractor Supply for about $100 new. I got it slightly used with all of the parts for $75.

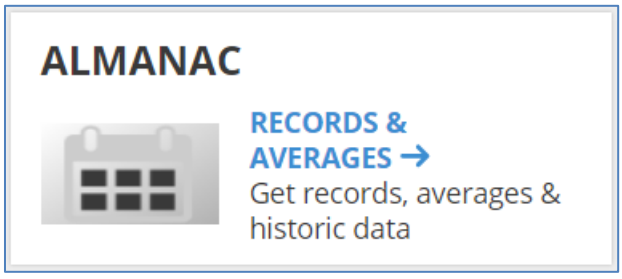
Better.

Now, before you go crazy and starting cutting your downspouts and installing diverters, you need to know how much rainwater you can collect. However, before you can even do that, you need to know what the average rainfall amount is for the months of April through September in your area.

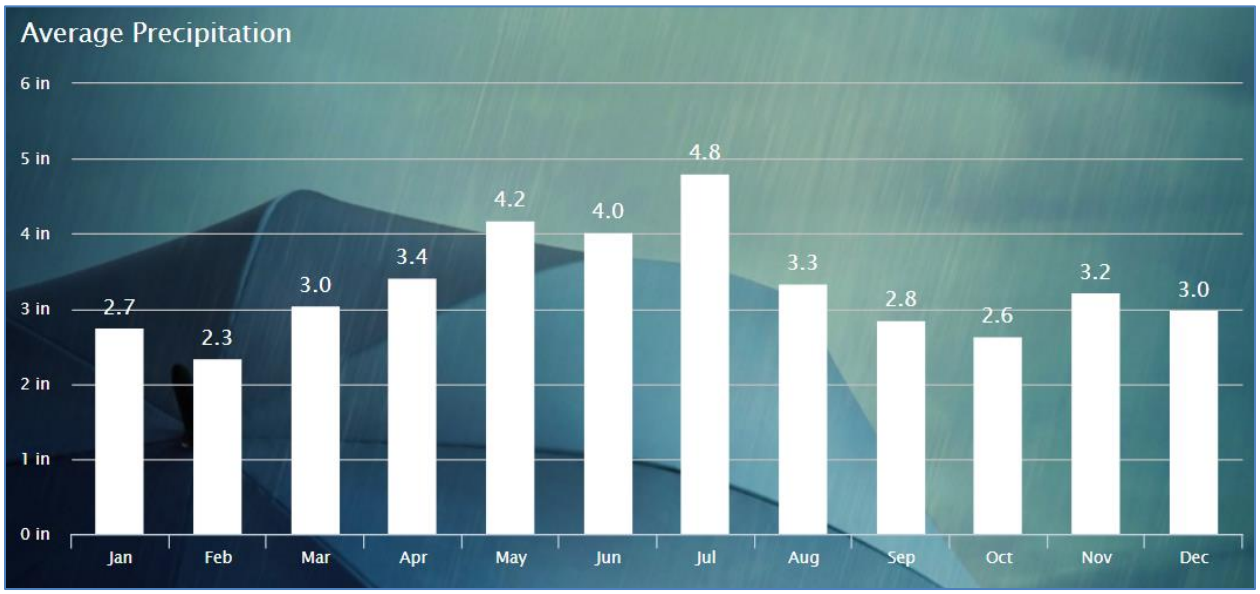
NOTE: In my area, there is still I high degree of risk associated with late freezes so I will never put out my barrel until April at the earliest. Also, because of my northern climate, late September is when I'm usually picking the last of my harvest. Your area may differ.

I went to weather.com and:

1.) Entered my zip code.
2.) Once the page loaded, I scrolled down about halfway and selected the 'Almanac' logo/icon on the right hand side.



3.) Then I scrolled all the way down to the bottom of the page and reviewed the 'Average Precipitation' bar chart.



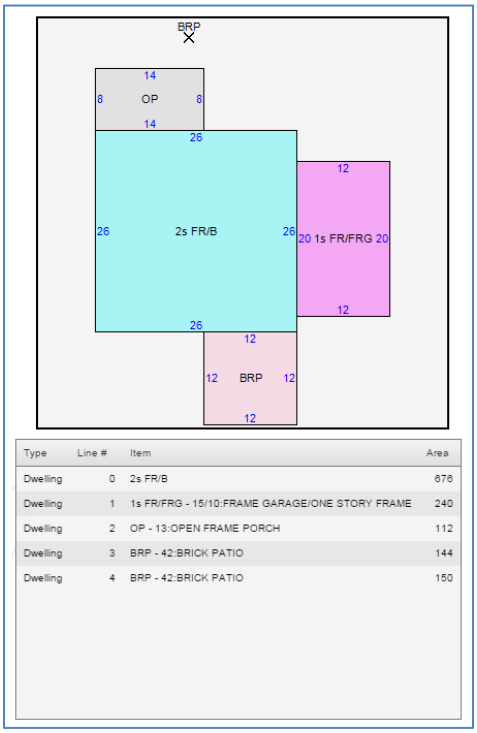
Once I had that, I just added up the average precipitation amounts for those months.

- April: 3.4 inches
- May: 4.2 inches
- June: 4.0 inches
- July: 4.8 inches
- August: 3.3 inches
- September: 2.8 inches
- **Total: 22.5 inches**

Once I had the average rainfall for April through September, the next thing that I needed to do was determine my catchment area. I need both the catchment area AND the average rainfall in order to plug them into the following equation:

Catchment Area x Rainfall Depth x 0.623 Conversion Fraction = Harvested Water (gallons)

Take my house for example. I have three rooflines to account for. They are marked on the image as "OP", "1s FR/FRG", and "2s FR/B" respectively.



Type	Line #	Item	Area
Dwelling	0	2s FR/B	676
Dwelling	1	1s FR/FRG - 15/10:FRAME GARAGE/ONE STORY FRAME	240
Dwelling	2	OP - 13:OPEN FRAME PORCH	112
Dwelling	3	BRP - 42:BRICK PATIO	144
Dwelling	4	BRP - 42:BRICK PATIO	150

Images like the one noted above can usually be found on your county auditor website.

For me, though, the abbreviations stand for Open Porch, 1 Story Frame, and 2 Story Frame.

Based on the dimensions, my catchment area is as follows (plus it's in the table under the image):

- OP = 112
- 1s FR/FRG = 240
- 2s FR/B = 676

This gives me a catchment area of 812 sq ft. The rainfall depth for the months of April through September in my area is 22.5 inches. Now all I have to do is multiply:

812 x 22.5 x 0.623 = 11382.21

In theory, I can harvest almost 11,400 gallons of water in six months!

Now, let's let realty set in. I obviously can't store that much... I only have one 55-gallon container! Plus, my garden isn't that big and I don't need that much water during ANY given growing season, but you can quickly see how fast it all adds up.

If you lived out in the country and were slightly more paranoid than me… you could probably figure out a way to store most of that. Hell, who am I kidding. I've already figure that out too.