How To Calculate The Size of a Rain Garden

Let’s get started

1. Multiply the width by the length of the catchment area (roof) that directs rain into the downspout.
   - This measurement gives the square footage of the catchment area.

2. Multiply the catchment area by the amount of rain fall.
   - The rain garden should be sized to capture at least 3/4 inch of rain that falls on the catchment area.
   - This measurement is 0.0625 feet.

3. Divide by the depth of the rain garden.
   - The rain garden depth should be 6 inches.
   - This measurement is 0.5 feet.

Here's the calculation:
Catchment area x Rain fall (0.0625) / Depth of rain garden (.5) = Size of rain garden

Example for a 400 square foot catchment area:
400 square feet of catchment area x .0625 divided by the rain garden depth of .5 = 50 square feet

How many gallons?
400 square feet x 3/4 inch of rain (.0625 feet) = 25 cubic feet
25 cubic feet x 7.5 gallons = about 187.5 gallons!
- That means that a roof of about 400 square feet can capture almost 200 gallons every time it rains an inch!
- The water can go into a rain garden area that is about 50 sq. feet: 5’ X 10’ or 7’ X 7’, etc.