Rainwater Harvesting
Calculating the potential water collection on your property

You can perform these calculations to determine an estimate of the total gallons of water that fall on your roof and in your yard during any given period of time; annual, single day, monsoon season, etc.

The "bird's eye" view, slope doesn't matter — inches/12

Roof: 0.8–0.95
Bare earth: 0.3–0.55
Grass: 0.1–0.25

The amount you could collect in cisterns from your roof!

surface	area (ft²)	rainfall (ft.)	runoff coefficient	gal/ft³	total (gal)
Roof	×	×	×	7.48	=
					+
Yard	×	×	×	7.48	=
					+
Surface 1 (optional)	×	×	×	7.48	=
					+
Surface 2 (optional)	×	×	×	7.48	=
					=

Strategies for rainwater harvesting

Begin with long and thoughtful observation
Sit outside and map where shade and water pools throughout the day

grand total

Start at the highest point of your watershed, then work your way down
Figure out where and how water runs off or stays on your property

÷748

Start small and simple
Many small solutions are better than one grand design

total CCF

Slow, spread, and infiltrate the flow of water
Keep the water that falls on your land; find solutions to slow, mitigate, and hold the water

To obtain Centum Cubic Feet ↑ (CCF), used by Tucson Water, divide the total by 748

Always plan an overflow route, and manage that flow as a resource
Prepare for the heaviest recorded rainfall in your area

Maximize living and organic ground–cover
Use mulch to create healthy and higher water retaining soil

Maximize beneficial relationship and efficiency by stacking functions
A tree can provide fruit, shade, and a place to sit under

Continually reassess your system as a feedback loop
No system is perfect; figure out what works and what doesn't as time passes