

## Catch Can Stands for Rain Gauges and Uniformity Check for Evaluating Irrigation

Irrigation Fact Sheet #16  
Dated 6-20

**Author:**  
Lyndon Kelley,  
Extension Irrigation  
Educator  
MSU Extension/Purdue  
Extension

269/467-5511  
[kelleyl@msu.edu](mailto:kelleyl@msu.edu)

A simple, inexpensive catch can stand can be built using:

1. 32 oz. disposable soda cup (Taco Bell cup)
2. 3 inch plastic drain pipe cut to 5 inch in length
3. 2 x 3 inch stud, cut to length to wedge into plastic drain pipe (drill hole partially through the chunk of wood to accommodate the fence post)
4. Steel (step-in) electric fence post

**Assembly directions:** The 2 x 3 inch stud chunks wedge into the base of the cut plastic drain pipe sections, and make the transition between the cup and post. Electric fence post should fit snug into the drill hole. A screw may be placed through the side of the plastic drain pipe into the 2 x 3 inch stud chunks. Electric fence post and cups can be stored and transported in separate stacks.

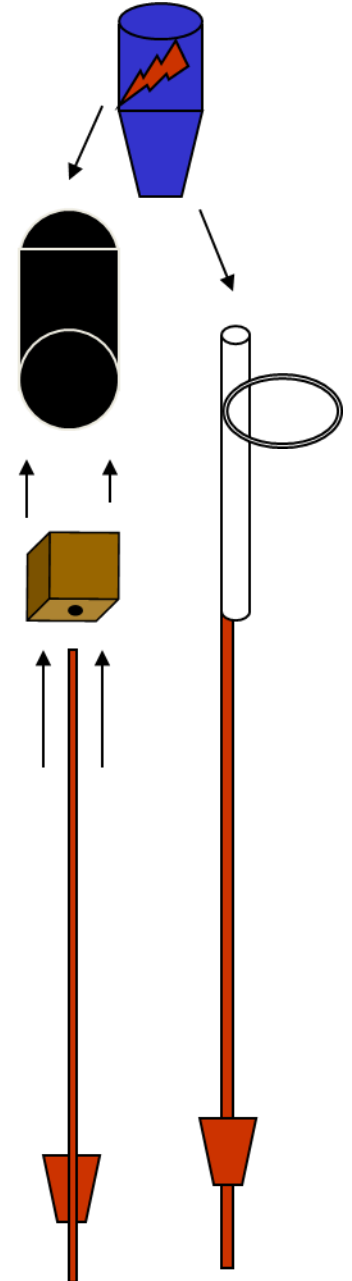
Or

1/2" plastic pipe cut in 4" section can be drilled with 1/4" hole 1" from end. 13" plastic cable tie secured through the 1/4" hole creates a cup holder to fit on top of post

The total cost per unit is less than one dollar and requires only a saw and a drill. The catch can stand will allow data collection in fields with crops up to 30 inches tall.

A 500 ml graduated cylinder is used to measure water volume. 500 ml graduated cylinders are available from science lab and beer maker supply stores on the web.

The chart on the following page is used to convert the ml measurement from the 32 oz. cup to an application volume in inches.



Continued

Typical 32 oz. soda cup has a 10 cm diameter opening.

ml reading	mm of application	inch of application
10	0.13	0.05
20	0.26	0.10
30	0.39	0.15
40	0.52	0.20
50	0.65	0.25
60	0.78	0.30
70	0.91	0.36
80	1.04	0.41
90	1.17	0.46
100	1.30	0.51
110	1.43	0.56
120	1.56	0.61
130	1.69	0.66
140	1.82	0.71
150	1.95	0.76
160	2.08	0.81
170	2.21	0.86
180	2.34	0.91
190	2.47	0.96
200	2.60	1.01
210	2.73	1.07
220	2.86	1.12
230	2.99	1.17
240	3.12	1.22
250	3.25	1.27
260	3.38	1.32
270	3.51	1.37
280	3.64	1.42
290	3.77	1.47
300	3.90	1.52

ml reading	mm of application	inch of application
310	4.03	1.57
320	4.16	1.62
330	4.29	1.67
340	4.42	1.73
350	4.55	1.78
360	4.68	1.83
370	4.81	1.88
380	4.94	1.93
390	5.07	1.98
400	5.20	2.03
410	5.33	2.08
420	5.46	2.13
430	5.59	2.18
440	5.72	2.23
450	5.85	2.28
460	5.98	2.33
470	6.11	2.39
480	6.24	2.44
490	6.37	2.49
500	6.50	2.54
510	6.63	2.59
520	6.76	2.64
530	6.89	2.69
540	7.02	2.74
550	7.14	2.79
560	7.27	2.84
570	7.40	2.89
580	7.53	2.94
590	7.66	2.99
600	7.79	3.04