



Summer Outdoor Bulk Laundry Experiment

Ideas for washing bulk items (sheets, towels, blankets, T-shirts, jeans):

How hot can the sun warm water on an average day? I had all the wash items in the black 50 gal trough soaking in a homemade enzyme cleaner while the water warmed by the sun. The kiddie pool had no wash items and was used for the clean rinse. The pot had a heavily soiled (from an extreme bloody nose incident) Large T-shirt also with enzyme cleaner.



Beginning temperature outside 75°F.

Time	Kiddy Pool Temp	Trough Deep Temp	Trough Shallow Temp	Canning Pot Temp
10:30am	64°F	64°F	64°F	64°F
11:30am	80°F	70°F	76°F	76°F
12:45pm	86°F	74°F	80°F	88°F
1:45pm	88°F	84°F	86°F	90°F
3:30pm	85°F	85°F	86°F	90°F

Outdoor high was 85°F and the wind started to pick up and cool the ambient air temperature around 2pm.

In less than 30 mins I was able to hand wash and hang out to dry on a clothesline a fitted twin sheet, wool socks, toddler denim overalls, 3 large T-shirts, 3 boys underwear, 2 washcloths, and a kitchen hand towe

Laundry soap was added to the black trough and the clothes were agitated inside the trough. Since I was using such a wide container on the ground, one agitation technique that could be used was to walk in the trough and stomp the clothes down. Scrunching with hands was also done. Clothes were individually gently squeezed out and then individually rinsed in the kiddie pool. Items were then hand wrung and hung on a clothes line. Clothes are significantly wetter than when using the washing machine.



Summer Bulky Outdoor Laundry Experiment *(continued)*



Final smell test after dry: No discernible difference between the hand washed T-shirts and the machine-washed T-shirts (2 of each, both washed the same day and dried at the same time). If anything, the machine-washed ones smelled less fresh than the hand washed ones. Smell test was conducted by the washer and a double-blind volunteer. Results were the same.

Conclusion:

If you are looking for heating water using this passive solar method the smaller dark, tin canning pot was the most efficient. You could consider putting a few of those out in the yard if you want more warm water. None of the water actually got hot. The extended sun exposure killed more germs than the temperature of the water. Using a larger kiddie pool or trough makes it much easier to wash large items like sheets, compared to a pot, bucket or some of the portable washers you can buy. My set-up was in a full sun, but very exposed area. If you have a full sun but protected area, you could probably improve the heating potential. Another option to try for heating water is snaking a very long black hose in the sun, but you would need pressure to get water in and out of the hose.

