

# Stationary bin: **Blue Barrel**

**Size (per barrel):** 61 cm wide x 61 cm long x 88 cm high

**Maximum capacity (per barrel):** 0.21 meters<sup>3</sup> (7.5 feet<sup>3</sup>)

**Price (per barrel):** \$10—\$30

**Total barrels used:** 4

**Tester satisfaction:** moderate

**Features:** Plain 55-gallon barrel with the top sawn off and placed loosely on top. Closed bottom.

**What you can put in it:** Food waste (excluding meat, bones, dairy, and fats), leaves, grass clippings, other yard waste (excluding cat or dog waste).

**“Yuck” factor:** During the testing period, very high. After improving the system following the test period, moderate.

**Complexity to use:** Moderate. To work properly, knowledge of balancing ingredients, moisture, and aeration is necessary.

**In winter:** Breakdown stops, but you can keep adding materials as long as there is room.

**Mobility:** When full, the barrels are very difficult to move.

**Available at:** Food grade barrels are commonly sold on free exchange sites such as [kijiji.ca](http://kijiji.ca).



Tested by: **The Two Twenty**



The Two Twenty is a coworking office space, where several dozen different non-profit groups and small companies operate. Approximately 110 people regularly use the building, producing a large amount of coffee grounds, fruit peels, and other scraps from the communal kitchen. The barrels were installed in order to divert this food waste from going to the landfill. Dry leaves, sawdust, and later, dry dirt were acquired from outside the building to balance the wet ingredients.

The Two Twenty has a small, concrete parking area in the back alley where the compost barrels were kept under a staircase. The barrels were chosen as a compost system because they are completely enclosed and would not drip any leachate onto the concrete.

## **Results:**

**Testing period:** June 2014—May 2015

### **Inputs:**

- 1415 litres of organic waste (56% greens, 38% browns, 6% dirt or finished compost, 0% other)
- Added 24 litres of water
- Aerated 5 times for a total of 2 hours 40 minutes

### **Outputs:**

- During the testing period, no usable finished compost was produced

### **Recommendations:**

Blue barrels are an efficient and cheap way to process organic waste in a small, paved space. More or fewer barrels can be acquired to fit the amount of inputs. However they must be set up carefully to avoid serious problems.

When the testing period began, the barrel system was still a new experiment. While it succeeded in not leaking on the concrete, the compost stayed consistently too wet, turned anaerobic and released extremely unpleasant smells when stirred. Breakdown was slow to non-existent.

After the testing period, major improvements were made. Six inches of woodchips were placed in the bottom of each barrel to absorb liquid. A length of 2" PVC pipe with holes drilled along it was added to each active barrel to provide airflow. In addition to sawdust, dry dirt was also added to balance the food waste. With these changes the system began to work well and the smell disappeared. The bins are now producing finished compost.

The only unsolved issue is fruit flies, which appear in large numbers during the summer and fall.