Is Big Belly worth the investment?



Picture of Big Belly on Harvard campus



Adapted from mantanecabulletin.com



Adapted from bigbelly.com

Avirul Islam, Evan Dong, Keira Kelly, and Rumaan Khan



Table of contents



01 Big Belly Description

Rumaan Khan

02 How Big Bellies Affect Pests

Avirul Islam

03 Cost Analysis

Keira Kelly

Key Stats and Why

04 Should We Care?

Evan Dong

05 Works Cited

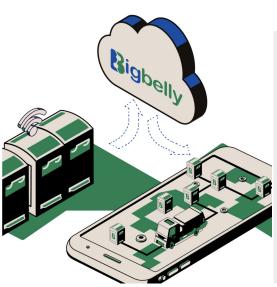


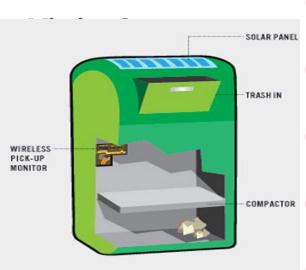


What Is Big Belly?













Big Belly Types





Bigbelly Element

Fully Enclosed 50 Gal / 189 L



Bigbelly Sense

Fully Enclosed LED Fullness Indicator Battery-powered 50 Gal / 189 L



Bigbelly Sense Max

Fully Enclosed

LED Fullness Indicator

Compactor

Solar-powered

150 Gal / 570 L



Bigbelly Smart

Fully Enclosed CLEAN™ Connected LED Fullness Indicator Battery-powered 50 Gal / 189 L



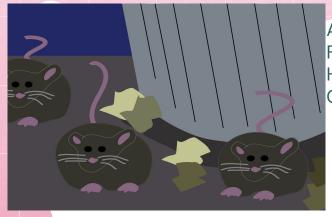
Bigbelly Smart Max

Fully Enclosed
CLEAN™ Connected
LED Fullness Indicator
Compactor
Solar-powered
150 Gal / 570 L

Big Belly's Clean™ Software







Adapted From Harvard Crimson



Adapted from Terminix



Adapted from Hawx Pest Control



Adapted from Humane life Control

Perks of Big Belly







Less Litter



Complete Containment

Adapted from Bigbelly.com





Cost Analysis + Benefits

- 1. The BigBelly trash bin
- 2. The basic trash bin
- 3. The CleanCUBE trash bin



Cost Analysis of BigBelly

Benefits of BigBelly

- Eliminates exposed waste and litter
- Reduction in Trash Collection
 Frequency
- Decreased Pest Infestations and Related Health Risks
- Long-term savings in operational costs

Category	Cost
Purchasing + Installation	Slightly over \$4,000
Battery replacement	\$500 (or \$100-125 a year)
Maintenance/Repair Costs	\$20 a year for repairs
Training Costs	Varies by location and needs



Adapted from bigbelly.com



Cost Analysis of Basic Trash Can

Benefits

- Provides basic waste
- containment
- Minimal training required
- Low initial investment

Category	Cost
Purchasing + Installation	Slightly over \$460
Maintenance/Repair Costs	Minimal cost for repair, higher maintenance price
Training Costs	Varies by location and needs, minimal.



Adapted from globalindustrial.com

Cost Analysis of Ecube Labs CleanCUBE

Benefits

- Holds 5x more waste than regular bins
- More hygienic, less pests
- Large reduction in Trash CollectionFrequency

Category	Cost
Purchasing + Installation	Slightly over \$3,000
Battery Replacement	\$500 (or \$125-167 a year)
Maintenance Costs	Minimal
Training	Varies by location and needs



Adapted from ecubelabs.com

BigBelly vs CleanCUBE

Big Belly

- Lifespan of about 7-10 years
- History of unreliable technology, leads to high maintenance prices
- Higher initial purchase price (\$4,000)
 - Battery replacement every 4-5 years

Both

- Solar powered
- Use 12V battery
- Fill-level sensors
- Real-time monitoring

CleanCUBE

- Lifespan of about 7-8 years
- History of reliable technology, lower maintenance prices
 - Lower initial purchase price (\$2,500)
- Battery replacement every 3-4 years



Animals and Sea Life





Estimates

Researchers estimate that over one million animals die each year due to being entrapped in or ingesting litter.



Common

Plastic is the most common killer of animals



Impactful

More than 100,000 dolphins, fish, whales, and turtles drown after becoming entangled or eating plastic each year

Between 400,000 and a million people are dying every year because of diseases and accidents linked to waste being poorly managed



That's 1 every 30 seconds on the more extreme side

https://www.globalcitizen.org/en/content/david-attenborough-plastic-health report/#:~:text=Around%20the%20world%2C%20according%20to.a%20d att%20everv%2030%20seconds.



Adapted from National Geographic



Adapted from NOAA



Adapted from WTHR



Adapted from Wikipedia

Recycling



Adapted from Valley Community for Recycling Solutions



Recycling has provided over 12 million jobs for people in Brazil, China, and the United States alone



Adapted from Wikipedia

saved

Paper

For every ton of paper

recycled, 17 trees are

https://www.unep.org/explore-topics/resource-efficiency/what-we-do/ cities/solid-waste-management#:~text=Poor%20waste%20management t%20-%20ranging%20from.cause%20infection%20and%20transmit%20 diseases



2018 Statistics of Bigbelly

144,112,133 gallons

of waste in public spaces collected, captured, and contained worldwide (545,523,766 liters)

70-90% reduced

collection frequency when using Bigbelly compared to traditional waste bins because the Bigbelly holds more







Works Cited

https://www.academia.edu/35335404/Benefit_Cost_Analysis_of_BigBelly_Solar_Trash_Compactors_in_City_of_Seattle_Parks

 $\frac{\text{https://bigbelly.com/news/bigbelly-compacting-trash-cans-great-for-city-of-millbrae-california-2\#:} \sim :\text{text=The} \% 20 \cos t \% 20 of \% 20 exactly of white the state of t$

https://www.ecubelabs.com/solar-powered-trash-compactor/