



Cardboard overruns landfills

Online shopping has boosted use of boxes as recycling declines

Elizabeth Weise
USA TODAY

SAN FRANCISCO – Walk down the street on garbage day in many towns, and evidence of our love affair with online shopping is plain to see. Recycling bins overflow with boxes from Amazon, eBay, Walmart and others.

All those folded and flattened corrugated cardboard boxes are a testament to Americans' diligent recycling efforts — to a degree.

A USA TODAY analysis of several industry studies on cardboard use and recycling paints a different story. Americans are sending more corrugated cardboard to the landfill than to recycling plants compared with past years.

Online sales have surged in the past five years, and cardboard use jumped 8% in the same period, according to the American Forest & Paper Association. Yet cardboard recycling has dropped.

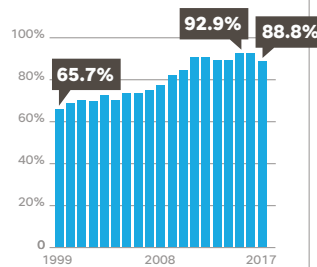
Last year, 300,000 fewer tons of corrugated paper were recycled in the USA than in the year before, even as domestic consumption increased 3.5%.

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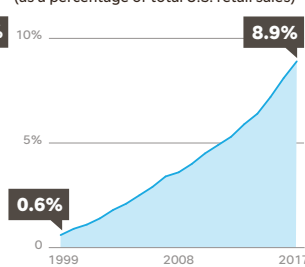
Cardboard recycling down as online sales rise

Cardboard recovery rate:



E-commerce rate:

(as a percentage of total U.S. retail sales)



SOURCE U.S. Census, American Forest & Paper Association
KARL GELLES/USA TODAY

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according to the AF&PA.

Without enough cardboard sent to recycling centers to be used to create new boxes, manufacturers may need more timber. Recycled content and timber each make up about half of what's in a corrugated box.

"We need those boxes to come back. The alternative is trees," said Bill Moore of Moore & Associates, a recycling industry consultant in Atlanta.

From box-store baler to the curb

For all our efforts to flatten boxes into recycling bins, consumers aren't that good at recycling cardboard.

Many of the cardboard shipping boxes used to go to retail stores. Workers at your local Kmart, Sears or Target would load the flattened boxes into a machine that bound them into bales that the stores could resell for \$74 or more a ton. Grocery and big-box stores recycled 90% to 100% of their cardboard, Moore estimated.

Consumers aren't as efficient at it.



Garbage companies are starting to rethink the size of their recycling bins.

ELIZABETH WEISE/USA TODAY

About 40% of Americans either don't have access to or don't sign up for curbside recycling, said Betsy Dorn, director of RSE USA, a sustainable-packaging consulting firm in Orlando.

Few recycle all their cardboard, often because it's a hassle. The city of Charlotte asks residents to tear or cut it into pieces that fit loosely into recycling carts and tells people not to fold it.

Nationally, consumers send back 25% of their cardboard for reuse, Dorn

estimated.

China — a big buyer of U.S. corrugated boxes — is being pickier about what it buys. It will no longer accept bales of cardboard that are contaminated.

"China has stopped buying, and the recyclers in the United States can't find enough buyers, so some of that goes to landfill. And that's not eco-friendly at all," said Hanna Zhao, a senior economist who follows global recovered-paper markets for RISI, a forestry consulting firm in Bedford, Mass.

Online shopping's ripple effect

Online retailers are dealing with the problem. Ten years ago, Amazon introduced 100% recyclable packing, so products can ship in their original packaging. That reduced the number of boxes by 500 million over the decade.

Walmart increased its number of box sizes from 11 to 27, to use the least amount of cardboard.

Those moves haven't help improve recycling rates.

The problem is expected to become more urgent. E-commerce will make up 25% of all retail sales by 2025, according to ABIresearch, suggesting more boxes could go from doorstep to trash.