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Less Packaging and More Recycling Reduces Waste

Minimizing the amount of packaging is one way to reduce the quantity of waste landfilled. Prior to the 1980's, virtually no package designer would have made a packaging choice with the sole intention of lessening the amount of packaging waste.

Traditionally, food manufacturers made packaging choices between cost and consumer convenience, or between package volume and consumer convenience. Often the decision favored consumer convenience in order to increase or maintain sales. But firms also kept an eye on costs and looked for ways to reduce packaging costs.

One way to lower costs is to reduce the quantity of materials used in manufacturing the package. While such reduction may seem negligible and lower the cost by only 1/10 of a cent on each package, total cost savings can amount to millions of dollars on products sold across the nation.

An example of a series of incremental, almost imperceptible changes in packaging is the 12-ounce aluminum beverage can. Since 1972, the thickness of the aluminum can body has been diminished primarily by the use of new designs that retain strength while reducing the metal required. In another innovation, the top of the can was necked in—first one, then two, three, and four times. Each successive necking down of the end lowered the weight of the can. By 1989 the average weight per can had been reduced by 26 percent.

A similar progression of incremental changes—lowering the amounts of material—has occurred in the packages that compete with the 12-ounce beverage can. (The production and sale of packaging is a highly competitive business.) Manufacturers of the 2-liter plastic soft drink bottle have reduced material weight by 25 percent over the past 14 years, and 16-ounce glass bottles have been reduced by 30 percent over a period of 10 years.

Recycling, the reuse of a packaging material, either to form new packages or to manufacture other useful materials, is another way to reduce sending packaging wastes to the landfill. Aluminum and glass can be remelted over and over again without degrading their properties. In the late 1960's, intensive efforts began to encourage people to recycle their aluminum cans. Sixty percent of aluminum cans are now recycled.

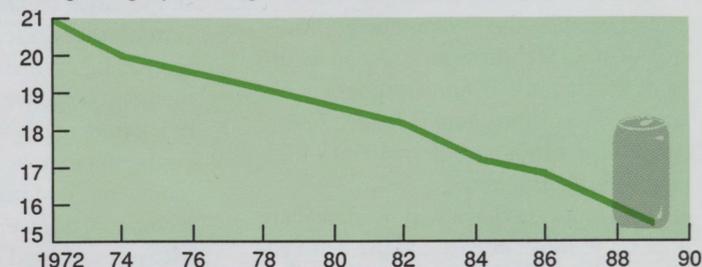
Other packaging materials are being recycled as well. Over 50 percent of paper corrugated boxes are recycled, limited only by lack of mills to handle waste paper recycling.

Potentially the greatest technical challenge to recycling is plastic because many different types of resins are used. Despite this drawback 20 percent of the plastic beverage bottles are being recycled. Coca-Cola has introduced soft drink bottles with recycled plastic resins, and Pepsi-Cola is waiting for government approval for their recycled plastic bottles.

—Robert F. Testin (803) 656-2229
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Aluminum Beverage Cans Keep Getting Lighter

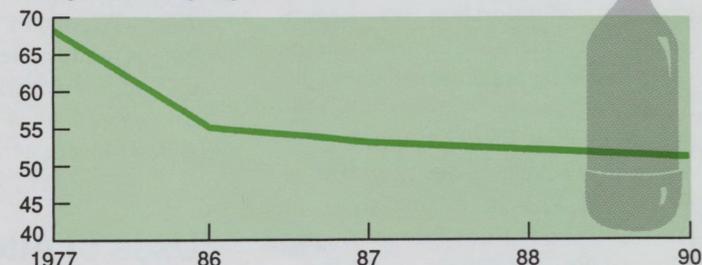
Average weight per can (grams)



Source: Aluminum Association. *The All-American Can: The Advantage Stock Up*, Washington, DC.

So Are 2-Liter Plastic Beverage Bottles. . . .

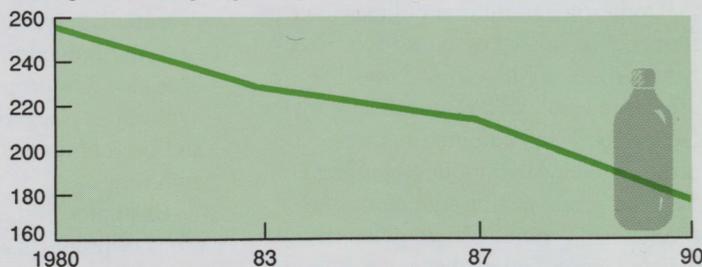
Average bottle weight (grams)



Source: F. Voight, Eastman Chemical, Kingsport, TN

. . . .And 16-Ounce Glass Beverage Bottles

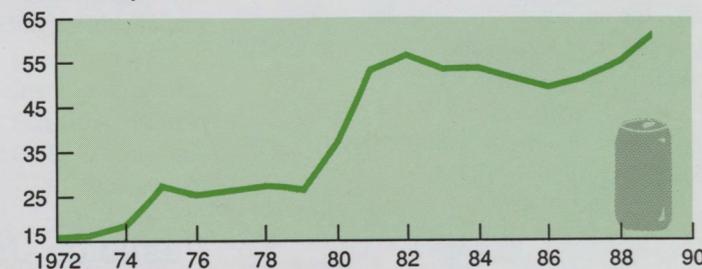
Average bottle weight (grams)



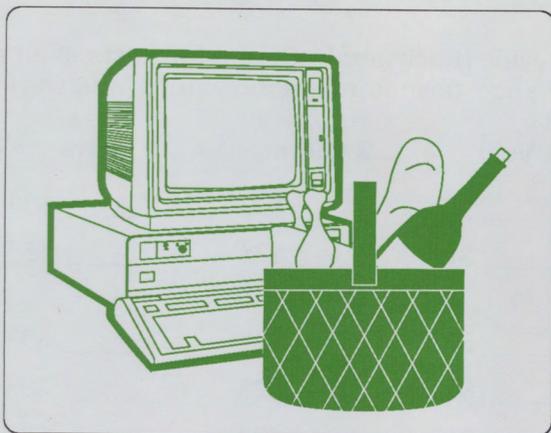
Source: K. Schlesselman, Manager, Container Design, Foster-Fobes, Marion, OH.

Over One-Half of Aluminum Cans Are Now Recycled

Percent Recycled



Source: Aluminum Association. *Aluminum Recycling, America's Environmental Success Story*, Washington, DC.



Test your knowledge of . . .

Americans and Food

Do you know America's #1 food import or how many new food and grocery products were introduced in 1989? What food showed the largest percentage gain in consumption over the past 20 years? These are just a few of the challenging questions you will find in a new computer quiz developed by USDA's Economic Research Service.

The quiz is available on a 5.25-inch disk and requires MS/PC-DOS Version 3.2 or 3.3 and 640 KB of memory. The program contains 54 questions and answers with important details on a wide variety of topics, ranging from fish consumption and trade to the fast food market. The easy-to-understand questions and answers make the quiz an excellent teaching tool and presentation aid. *Single copies are \$25 (Order #91002A), but bulk orders to one address allow a quantity discount: 10 copies for \$40 (order #91002B) or 50 copies for \$75 (order #91002C)!*

Call 1-800-999-6779 (in the U.S. and Canada; other areas call 301-725-7937) to order your copy today.

Now, here's your chance to test your knowledge of "Americans and Food" with a sample of questions from the quiz. The answers are below.

1. How many new food and grocery products were introduced in 1989?

- | | |
|-----------|------------|
| (a) 989 | (c) 8,971 |
| (b) 3,787 | (d) 12,055 |

2. Which group dines out most often?

- | | |
|---------------------|----------------------------|
| (a) 14-24 year olds | (c) 45-64 year olds |
| (b) 25-44 year olds | (d) 65 years old and older |

3. Do you know the largest market for U.S. exports of processed food?

- | | |
|------------|---------------------|
| (a) Canada | (c) The Netherlands |
| (b) Japan | (d) Mexico |

4. Let's check your knowledge of the many "new" foods available these days. Do you know what *surimi* is?

- | | |
|-----------------------|-----------------------------|
| (a) A type of cabbage | (c) A fat substitute |
| (b) A fish product | (d) An artificial sweetener |

Ready to tally your score?

1. The correct answer is (d) 12,055, but an estimated 90 to 99 percent of new food products fail.
 2. The correct answer is (b) 25-44 year olds.
 3. Exports of processed food to (b) Japan totaled \$5.4 billion in 1989, followed by \$1.5 billion to Canada.
 4. *Surimi* is a minced (b) fish product used in products that simulate crab, shrimp, and other popular seafoods.

Note: Data products are not returnable.