

Visual Data

How the World Wastes Food

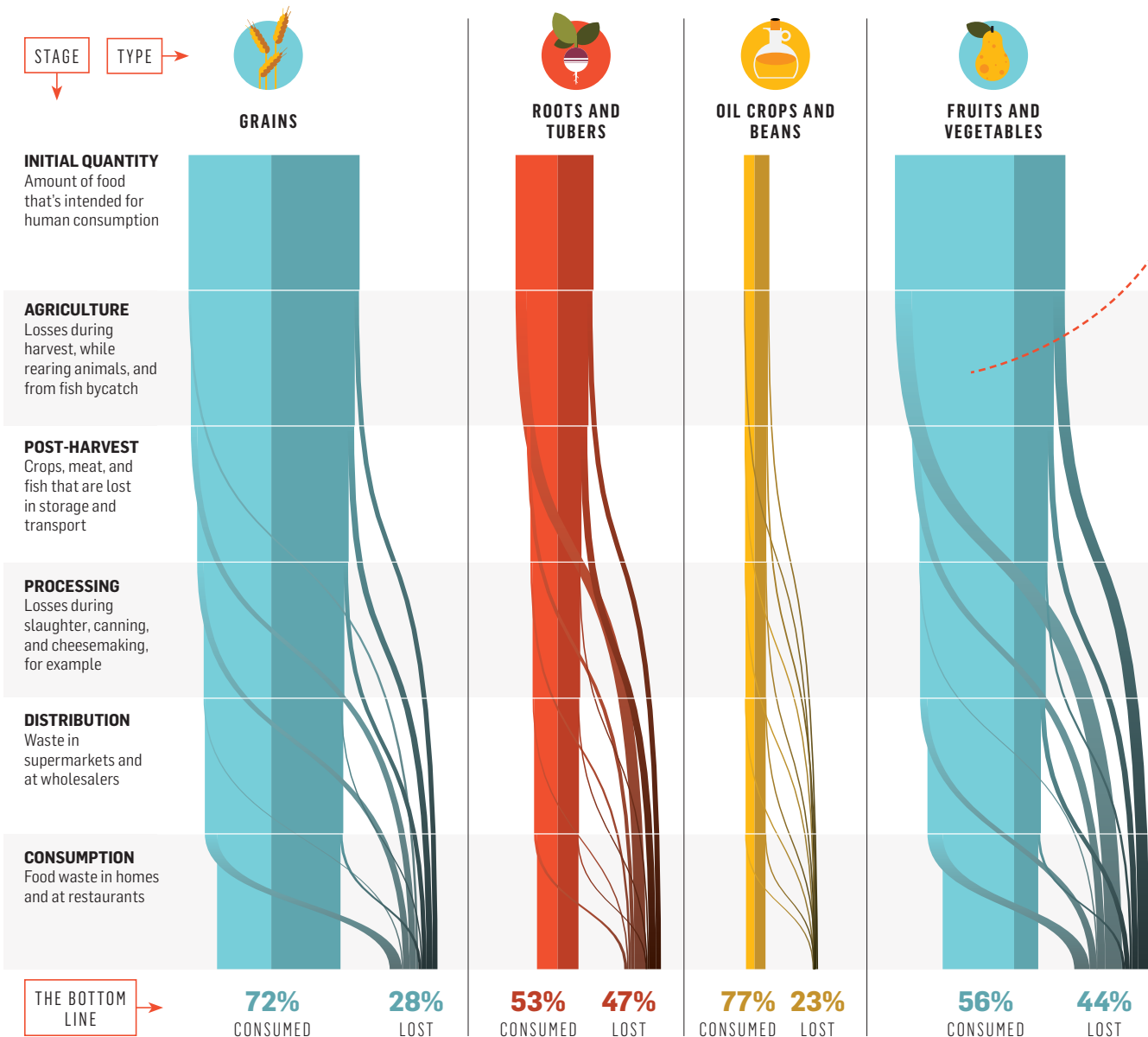
STORY AND ILLUSTRATION BY Katie Peek

Every year, the planet loses nearly a third of its food—a staggering 1.4 billion tons. That's according to a 2011 United Nations study that assessed food networks in 152 countries. The researchers' results reveal where in the food-supply chain farmers, engineers, and consumers might more effectively get comestibles into mouths.

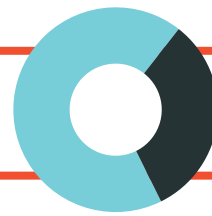
KEY
The width of each ribbon represents the amount of food, per person worldwide, consumed or lost annually.

Kilograms of food per capita	50
	25
	10

Industrialized nations	Developing nations
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Food worldwide
68% EATEN



32% LOST

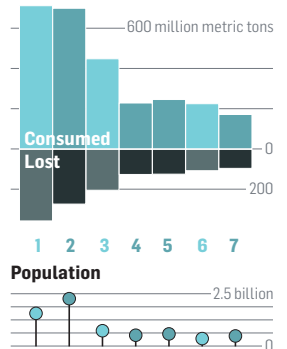
THE FUTURE OF FOOD PRESERVATION

To tackle food waste, the U.S. Department of Agriculture and partner Worrell Water Technologies developed a one-square-inch packet that extends the refrigerated life of fruits and vegetables by up to five weeks. Each permeable packet contains Curoxin vapor, a proprietary disinfectant that releases slowly inside a clamshell container and envelops fresh food in an antimicrobial cloud. The effect? Water loss and fungal growth are significantly arrested, which maintains produce's firmness, color, and taste. Currently in trials, Curoxin should be available in 2015. **MATT JANCER**

BIGGEST LOSERS

In total, developing regions waste as much food as industrialized ones. Asia—home to half the world's population—loses the most overall.

1. China, Japan, and South Korea
2. Southeast Asia
3. Europe and Russia
4. Sub-Saharan Africa
5. Latin America
6. Canada, the U.S., New Zealand, and Australia
7. North Africa, Middle East, and Western Asia



MEAT



79% CONSUMED
21% LOST



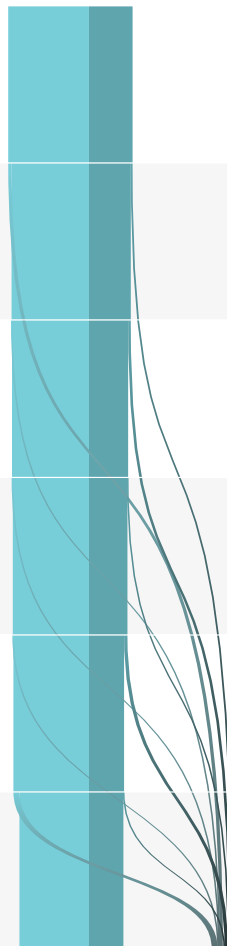
FISH



65% CONSUMED
35% LOST



DAIRY



84% CONSUMED
16% LOST

FOOD ILLUSTRATIONS: MICHELLE MRUK (7)

WHAT TO DO ABOUT IT

The planet may have to feed a global population of 10 billion people by 2050. With that milestone looming, organizations like the U.N., the National Resources Defense Council, and Food Tank are working on ways to make food systems more efficient.

PROBLEM

Agricultural loss particularly plagues industrialized nations, where farmers often need to over-produce in order to guarantee a steady supply to grocery stores.

Food loss after harvest is a bigger problem in developing countries—where food infrastructure is often less modernized—than in industrialized ones.

Developing countries lose the most fruits and vegetables at the processing stage because it's expensive to maintain facilities big enough to handle large seasonal influxes.

If a supermarket rejects food once it leaves a processing plant—say, for having too many tomatoes already—the truck driver may not be able to find another buyer before the food spoils.

At the last stage, people in industrialized countries waste five times as much food as people in developing ones. In the U.S., that means 35 million tons of food each year head to landfills and incinerators.

SOLUTION

With better food labeling—for example, using a spoils-on date rather than a sell-by date—markets could keep their stock longer and ease demand on farmers.

Improving roads would enable unrefrigerated perishables to reach market faster, cutting down on spoilage. Investment in cold-storage facilities would also prevent losses.

If the owners of processing facilities enter into contracts with individual farmers before they sow seeds, the timing and size of the harvest may be more predictable and manageable.

New mobile-phone apps, including one called Food Cowboy, help drivers locate nearby food banks that might take the shipment.

In the U.K., a public-awareness campaign cut household losses by 20 percent, by encouraging actions such as taking more frequent shopping trips to prevent groceries from spoiling.

Member of the clean-plate club?
Tweet your food-saving tips @PopSci with #HowI SaveFood.