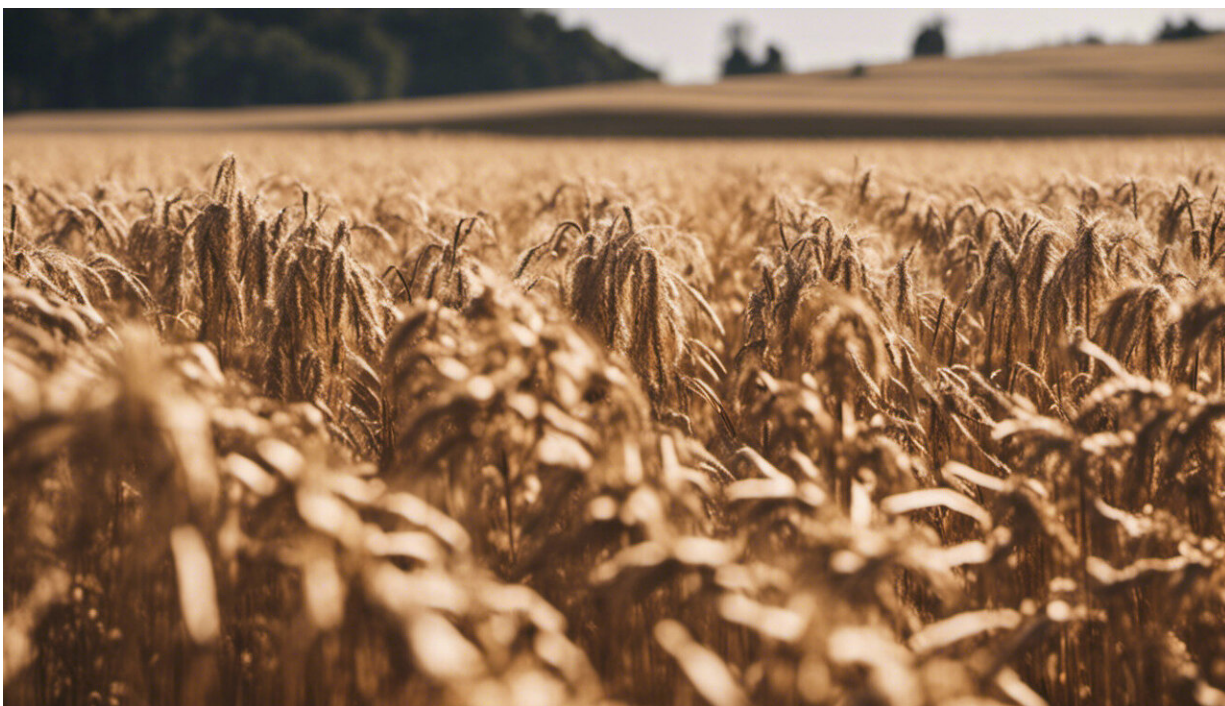


Almost 20 percent of grain in China lost or wasted from field to fork

September 4 2013



Credit: AI-generated image ([disclaimer](#))

A comprehensive new review of food waste in the People's Republic of China has concluded that about 19 of every 100 pounds of grain produced in the country go to waste, with related losses of water for irrigation and farmland productivity. The report appears in ACS' journal *Environmental Science & Technology*.

Junguo Liu and colleagues point out that food waste is a global problem with an estimated one-third to one-half of food produced worldwide being lost or wasted from farm to fork. Estimates suggest that the United States wastes about 40 percent of food crops. The problem is especially acute in China. With only 6 percent of the world's total water resources and barely 9 percent of the arable land, China nevertheless must feed 21 percent of the world's population. Liu's team set out to document loss and waste of food as a basis for developing policies that could help sustain the food supply in the future.

They found that about 19 percent of rice, wheat and other grain in China is lost or wasted, with consumer waste accounting for the largest portion, 7 percent. The overall loss meant the waste of an estimated 177 billion cubic yards of water used to produce food grown but never eaten—a volume equal to the amount of water Canadian farmers use to grow all their crops. And it meant the waste of 64 million acres of cropland sown and harvested in vain. Liu and colleagues recommended several strategies, including raising public awareness, improving storage systems, mechanizing the harvest of grains and putting in place monitoring programs to track [food waste](#) with more precision.



The article is titled "Food Losses and Waste in China and Their Implication for Water and Land."

More information: Food Losses and Waste in China and Their Implication for Water and Land, Environ. Sci. Technol., Article ASAP
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Abstract

Conventional approaches to food security are questionable due to their emphasis on food production and corresponding neglect of the huge amount of food losses and waste. We provide a comprehensive review on available information concerning China's food losses and waste. The results show that the food loss rate (FLR) of grains in the entire supply chain is $19.0\% \pm 5.8\%$ in China, with the consumer segment having the single largest portion of food waste of $7.3\% \pm 4.8\%$. The total water footprint (WF) related to food losses and waste in China in 2010 was

estimated to be 135 ± 60 billion m³, equivalent to the WF of Canada. Such losses also imply that 26 ± 11 million hectares of land were used in vain, equivalent to the total arable land of Mexico. There is an urgent need for dialogue between actors in the supply chain, from farmer to the consumer, on strategies to reduce the high rates of food losses and waste and thereby make a more worthwhile use of scarce natural resources.

Provided by American Chemical Society

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