Feeding the World Through Chemistry: Advances in Agricultural and Food Chemistry in the Past 150
Joint Programming AGRO, AGFD, HIST - Fall National ACS Meeting 2026

"Improvements in food and agriculture since 1876: Farming and packaging"

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Advances in the science of food and agriculture have greatly benefited the lives of all Americans. When the American Chemical Society began 150 years ago, half of the U.S. labor force consisted of farmers working on four million farms averaging 134 acres. Now, one percent of workers is on 1.88 million farms with an average size of 466 acres. Despite the decreases in farm numbers and employment, the U.S. produces more than enough 30 food and fiber to serve the needs of a population that has soared from 46.8 to 349 million people over the past 150 years. For instance, innovations in seeds, fertilizers, irrigation, pesticides, and other factors have caused the average yield of corn to increase from 26 to 189 bushels per acre from 1876 to 2025. This presentation will cover the developments in growing and packaging food since the late 19th century.

"Improvements in food and agriculture since 1876: Distributing and preparing food"

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When the United States was a young country, people often purchased their food directly from the grower. Once railroads became established, food could be shipped over long distances, creating a new supply method. Grocery chains were born in the late 19th century, followed by the creation of self-service stores and supermarkets. Preparing food at home also changed as hearths were replaced by cast iron stoves, which gave way to gas and electric ranges. In the first half of the 20th century, domestic refrigerators and other appliances appeared, making cooking easier. By that time, recipes were more scientific and food education was established. This presentation will detail the changes in how food was obtained and prepared over the last 150 years.