

SNACK AND FACT:

Contributions of Non-Traditional Meat Animals to Global Food Security and Agricultural Economy



**December 8, 2014 • House Agriculture Committee
1300 Longworth House Office Building / Washington, DC**

Hosted by the American Society of Animal Science

AGENDA

12:00 to 12:05 pm: **Welcome**

Walt Smith and Lowell Randel, FASS Science Policy Directors

12:05 to 12:10 pm: **Introduction and Goals**

Ms. Kim Schoonmaker, Scientific Communications Associate, ASAS

12:10 to 12:25 pm: **The importance of animal protein in our diets**

Dr. Teresa Davis, USDA/ARS Children's Nutrition Research Center and Baylor College of Medicine, ASAS Public Policy Committee

12:25 to 12:50 pm: **Contributions of non-traditional meat animals to global food security and agricultural economy**

Dr. Surendranath P. Suman, University of Kentucky

12:50 to 1:00 pm: **Questions & Answers**

Moderated by Dr. Teresa Davis, USDA/ARS Children's Nutrition Research Center and Baylor College of Medicine, ASAS Public Policy Committee

For more information, contact ASAS at asas@asas.org.

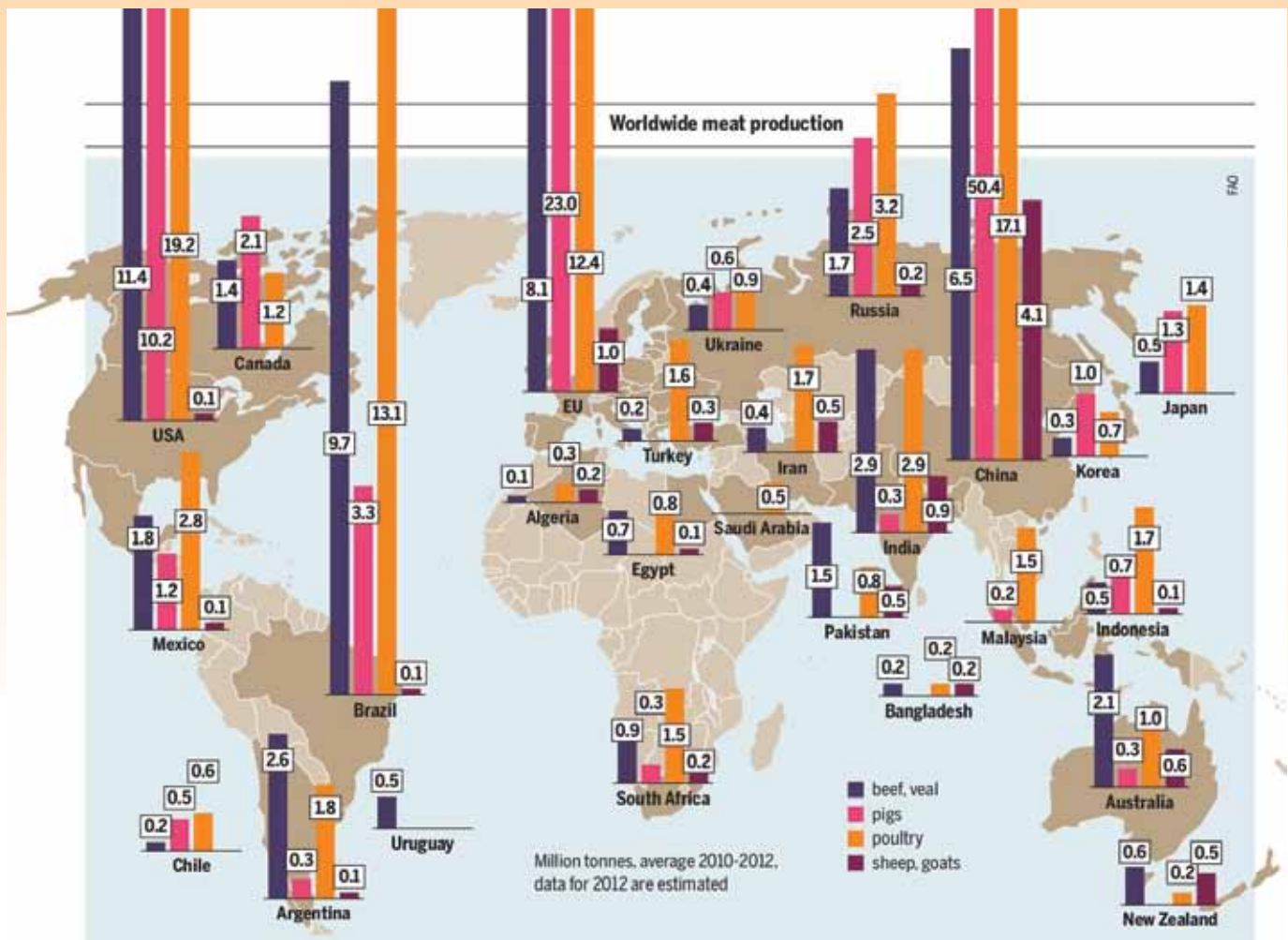
Meat is an important source of high-quality food proteins that are increasingly in demand in developing countries as their economies improve and become more stable. Developed countries also are anticipating an increased need for animal-sourced foods as modern-day consumers desire more convenience, more selection, and increased healthfulness from food. It is evident that meat from less traditional species will be necessary to supplement beef, pork, lamb, and poultry to meet the anticipated future demand for animal proteins.

Adverse climate and scarcity of natural resources (i.e., water and forages) in many parts of the world make production of conventional livestock a challenge. Therefore, many non-traditional species provide protein-rich food for human nutrition and contribute to a thriving agricultural economy and food security. In addition, meat and meat products from many non-traditional species are exported internationally. Nonetheless, these animals have received significantly less attention than conventional livestock.



Examples of ruminant production, by countries and main species

(adapted from Kalverkamp et al., 2014; reproduced under a Creative Commons License).



The contribution of individual countries to global meat production from selected traditional livestock species (Kalverkamp et al., 2014; reproduced under a Creative Commons License).

Non-traditional meat sources provide multiple options and choices for consumers. Some of the non-traditional meat sources are considered delicacies, while other meat sources have specialized production or environmental requirements. The amazing diversity among these animals is clearly evident in their size (from cavia in South America to water buffalo in Asia) and habitat (from camels in deserts of the Middle East to deer in Alaska and Scandinavia). Species like rabbit are efficient in conversion of feedstuffs into an edible product. Other non-traditional meats like camel, water buffalo, goats, kangaroo, and South American mammals are specifically adapted to harsh climates or specific environmental conditions. Species such as deer and bison could be raised in production schemes more similar to traditional livestock species and produce meat with a different composition and flavor than beef, pork, lamb, or poultry. On the other hand, selection of specific traits in animals has resulted in meat with specific desired palatability for production of Wagyu beef, highly prized for its tenderness and flavor.

In conclusion:

- Animal-sourced protein is needed and in high demand.
- Increasing demand for animal proteins in the 21st century, primarily fueled by an ever-growing human population and improving living standards, cannot be met solely by conventional livestock.
- Non-traditional animal-sourced foods become highly relevant to global food security.





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DR. TERESA A. DAVIS is a Professor of Pediatrics at the USDA/ARS Children's Nutrition Research Center at Baylor College of Medicine and an Adjunct Professor at Texas A&M University. She received her Ph.D. in Nutrition Science from the University of Tennessee and her postdoctoral training from Washington University School of Medicine. Her USDA and NIH funded research focuses on the nutritional regulation of protein metabolism and growth. Dr. Davis has received the ASAS Animal Growth and Development Award, the American Society for Nutrition (ASN) Stokstad Award for Outstanding Fundamental Research in Nutrition, the Centennial Leader Award from the University of Tennessee, and the Research Mentor Award from Baylor College of Medicine. She is a Fulbright United States Distinguished American Scholar and a Distinguished Foreign Expert at China Agricultural University. Dr. Davis is a member of the ASAS Board of Directors and the Public Policy Committee and served on the Editorial Board of the *Journal of Animal Science*. Dr. Davis served on the ASN Executive Board and is a Past President of ASN. She is on the Editorial Board of the *Journal of Animal Science and Biotechnology*, was an Associate Editor of *The Journal of Nutrition*, and is currently the Editor-in-Chief of *The Journal of Nutrition*.

