

Global Prospective The Poultry Meat Industry

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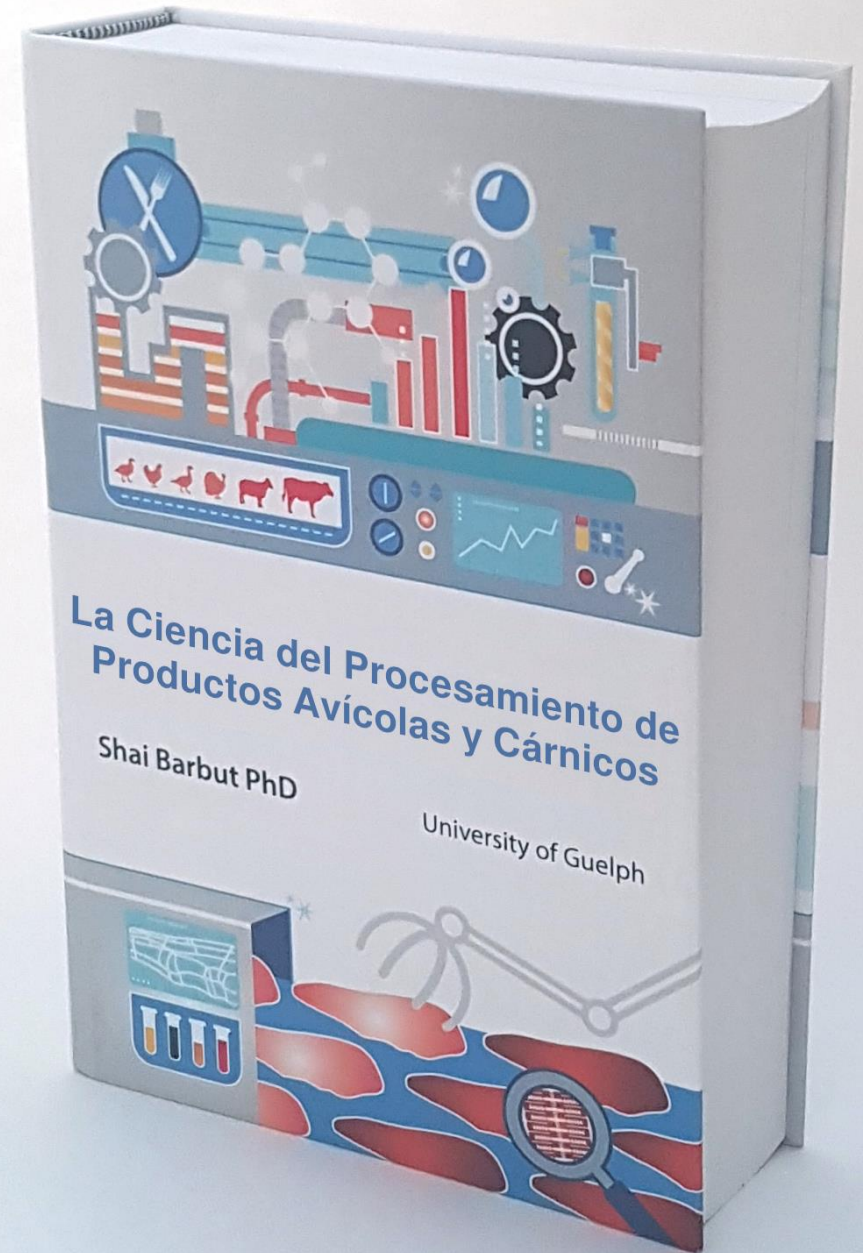
July 14, 2025

Bogota

Background reading

- Free download: Spanish /English version –
- <https://www.poultryandmeatprocessing.com/>
- Chapters:
 - Automation
 - Global Perspective
 - Structure* and Muscle Physiology
 - Live Bird Handling*
 - Primary Processing of Poultry*
 - HACCP in Primary Processing*
 - Inspection and Grading*
 - Stunning*
 - Portioning, Deboning and Composition*
 - Further Processing – Equipment
 - Heat Processing, Cooling, and Preservation
 - HACCP in Cooked Meat Operations
 - Principles of Meat Processing
 - Battering and Breading
 - Microbiology and Sanitation
 - Evaluating Texture and Sensory Attributes
 - Evaluating Water/Fat Binding and Colour
 - Waste Treatment and By-products

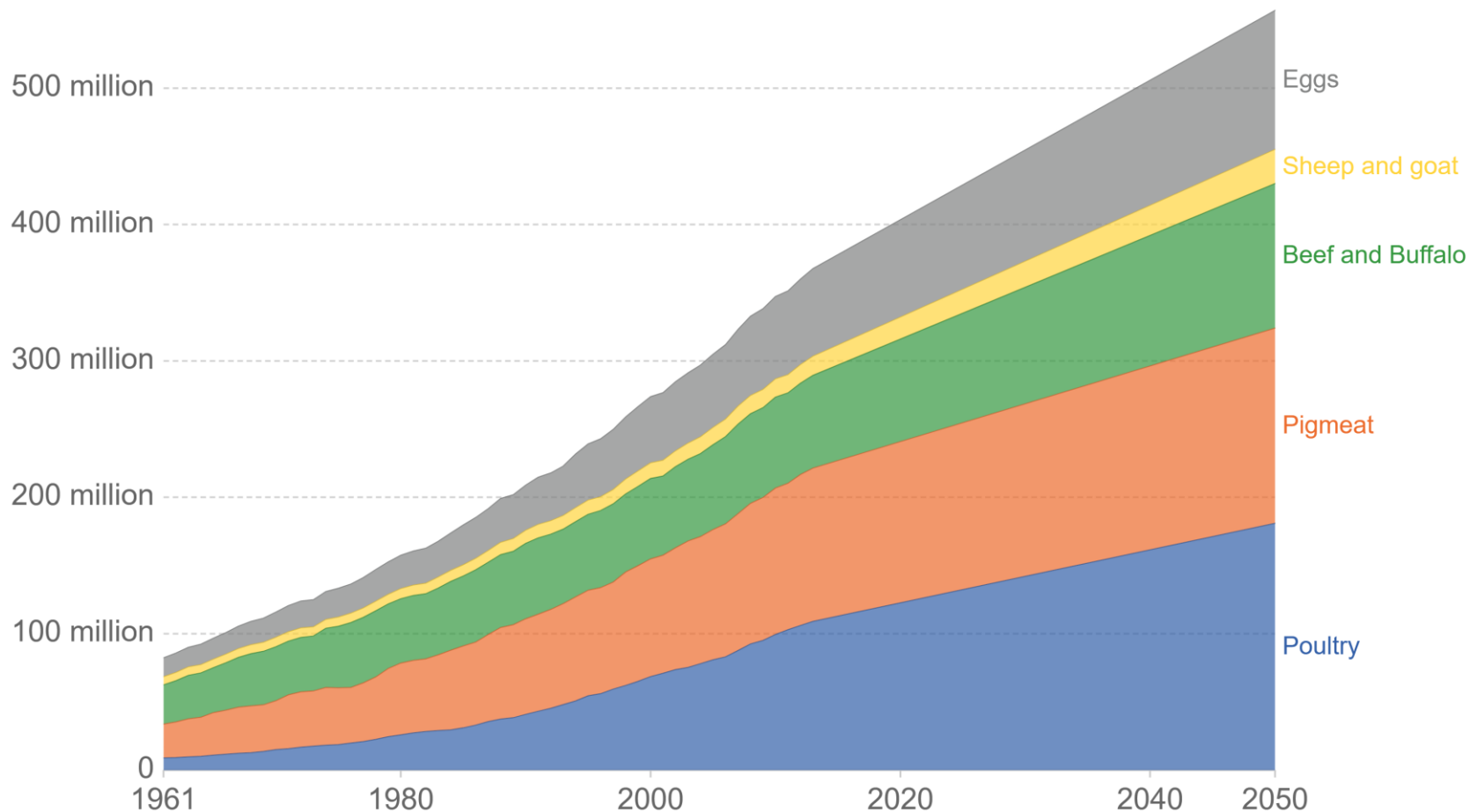
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Meat Production by 2050 (Data Nov 2019)

Global meat projections to 2050

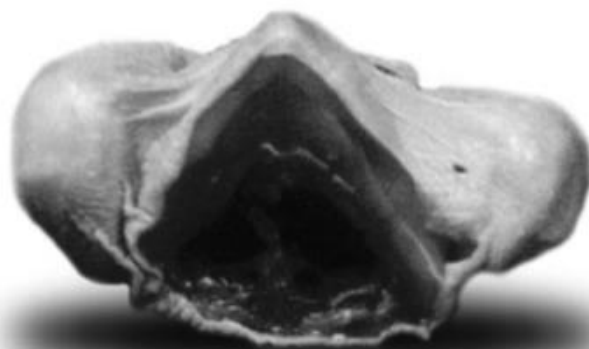
Global meat production projections, as published by the UN Food and Agriculture Organization (FAO) based on future population projections and expected impacts of regional and national economic growth trends on meat consumption. Data from 1961-2013 is based on published FAO estimates; from 2013-2050 based on FAO projections.



$$230 \times 1.75 = 402$$

CHANGES IN CONFORMATION

1970



2008



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Book
Fig

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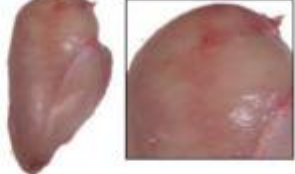
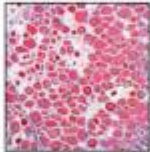
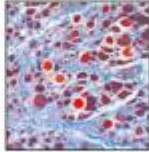
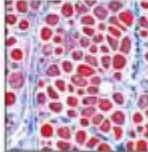
See text book for more details

GROWING MORE AND BIGGER CHICKENS COMES WITH CHALLENGES

1) MYOPATHIES IN BROILERS: SUPPLY CHAIN APPROACH TO PROVIDE SOLUTIONS TO CHALLENGES RELATED TO RAISING FAST GROWING BIRDS

BARBUT ET AL. 2024 POULTRY SCIENCE 103801



	White Striping	Wooden Breast	Spaghetti Meat
Phenotype			
Description	White striations of variable thickness running parallel to the myofiber direction	Out-bulging and pale areas having hardened consistency often exhibiting petechial hemorrhages	Loss of integrity and separation of the fiber bundles composing the tissue
Microscopic appearance			
Pathognomonic microscopic features	Increased deposition of lipid at perimysial level (lipidosis)	Proliferation of connective tissue at perimysial level up to fibrosis	Progressive rarefaction of the connective tissue composing the perimysial septa
Common histological traits	Profound modifications in the muscle architecture including the presence of fibers having rounded profile, nuclear rowing and internalization, hypercontracted fibers, degeneration up to lysis along with occasional regeneration, inflammatory cells infiltration, compromised perimysial septa		

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Comprehensive review of highly pathogenic avian influenza (HPAI) H5N1: An imminent threat at doorstep

Charostad et al. 2023. Travel Medicine and Infectious Disease: 55,102638

POULTRY CONSUMPTION IN SELECTED COUNTRIES

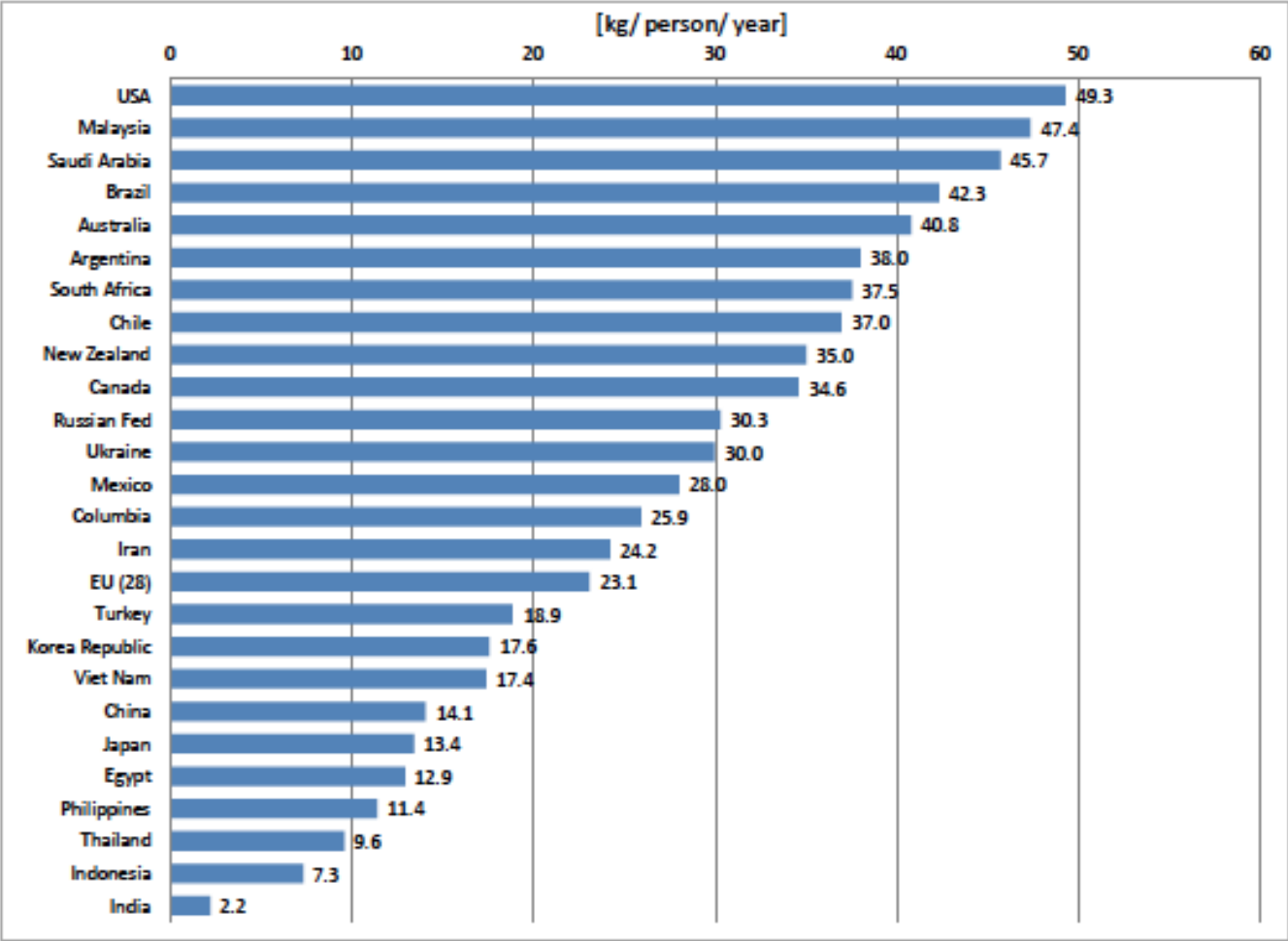
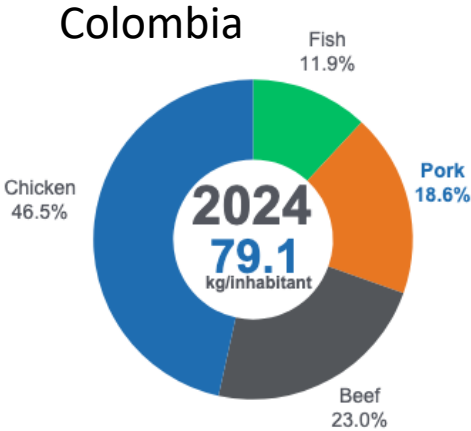
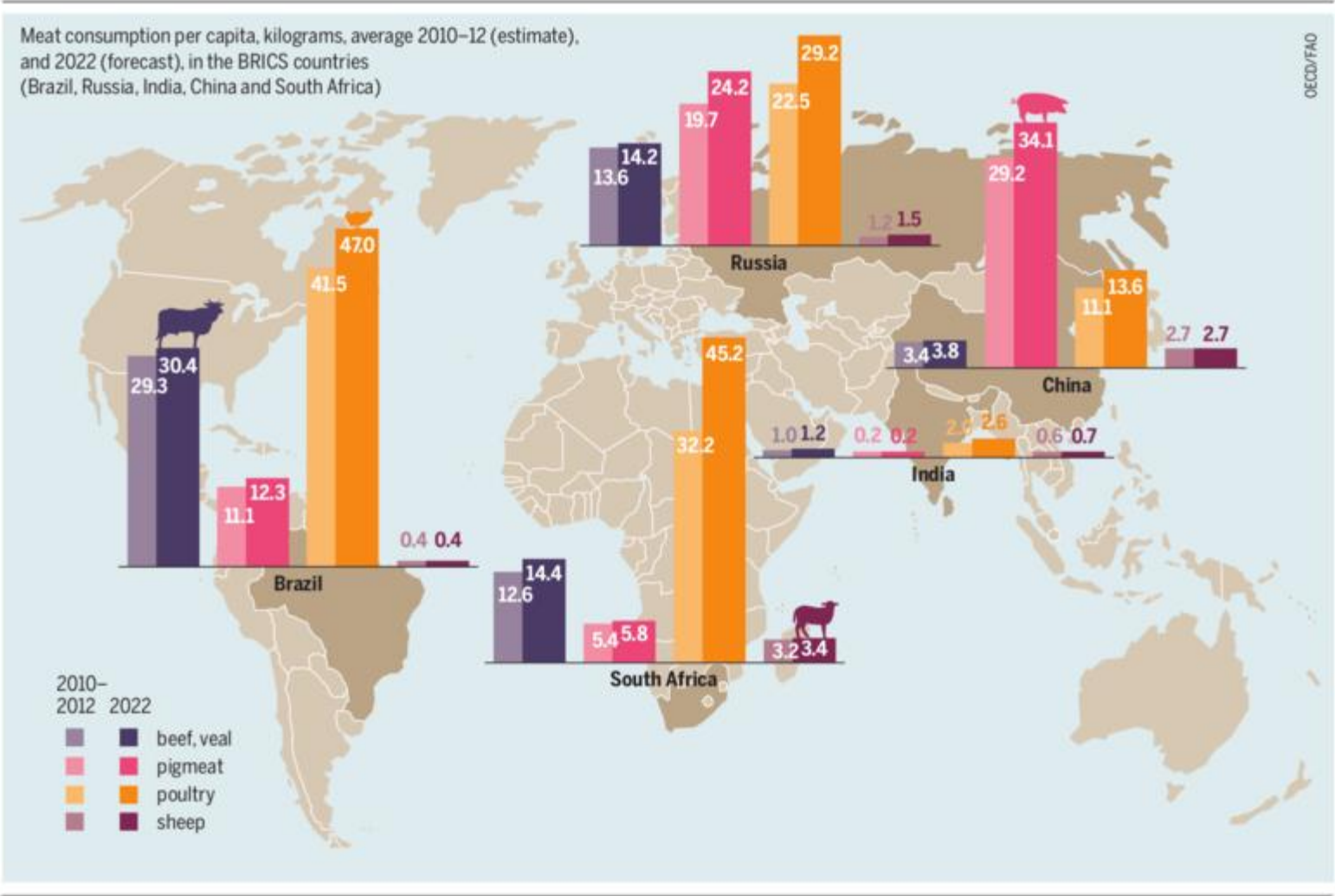


Figure 1 - Projected per capita consumption of poultry meat in selected countries in 2024 (Source: OECD-FAO Agricultural Outlook 2015)

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DEVELOPING COUNTRIES

Demand in the developing world is rising steeply



New 'Colombian Chicken' brand aims to increase exports

Colombian chicken, beef and pork get together for the first time to push these animal proteins into the world market.

Watt Publication 11-12-2023



Fenavi

This commitment goes beyond chicken. [The National Poultry Producers Federation \(Fenavi\)](#) has joined efforts with beef and swine producers to export all meats to the rest of the world. This joint effort to promote their products was done at [Anuga](#), the world's leading trade fair for food and beverages, that took place this week in Cologne, Germany. Brazilian poultry producers were also present in this trade show launching the campaign “[Good Food – Sustainable Protein.](#)”

Beef producers from Colombia already export beef, swine producers are on their way but not yet poultry producers. This is the first time that the three animal protein producers have joined forces in an alliance to show their export capacity, to go out of their borders. Chicken producers want to leverage this alliance, because many world trades import the three animal proteins, so they can ride the same boat.

They are committing themselves to the future. Most interestingly is the fact that they will complement their marketing strategy with a joint “animal health diplomacy,” something worth

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LINE SPEED - BROILERS

Year	Line Speed	Automation
1970	3,000	De-feathering
1975	4,500	Cleaning
1980	8,000	Meat harvest
1990	9,000	Stimulation
2000	10,500	Cut up
2010	12,000	Unloading
2015	13,500*	Deboning
2020	15,000	Portioning

THANK YOU



The Science of Poultry and Meat Processing

Shai Barbut PhD

University of Guelph

- English version – free download
- www.poultryandmeatprocessing.com

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