INFORMATION SHEET 1 – BROILER PRODUCTION – GLOBAL

PRODUCTION & TRADE

More than 70 billion chickens are slaughtered each year globally, producing around 120 million tonnes of chicken meat (Table 1). The broiler industry was valued at US$ 183 billion in 2020 (FAOSTAT[1]). The USA, China[i] and Brazil are the biggest producers, accounting for more than 40% of global production in 2020 (Fig. 1). The top ten chicken meat producing companies are located across the Americas and Asia (Table 2).

Table 1. Chicken meat production globally and in various world regions. Source: FAOSTAT[1].

Region	Chicken meat production 2020 (tonnes)	Share of global chicken meat production 2020 (%)	Chickens slaughtered 2020 (billions)	Share of global chickens slaughtered 2020 (%)
World	**119,504,578**	**100.0%**	**70.8**	**100.0%**
Asia	43,491,487	36.4%	31.0	43.8%
Latin America*	26,655,677	22.3%	12.5	17.7%
North America (USA and Canada)	21,794,927	18.2%	10.1	14.3%
Europe	19,684,933	16.5%	11.6	16.4%
European Union (27)	11,036,941	9.2%	6.4	9.1%
Africa	6,378,058	5.3%	4.8	6.7%
Oceania	1,499,496	1.3%	0.8	1.1%

* includes South America, Central America (including Mexico) and the Caribbean.

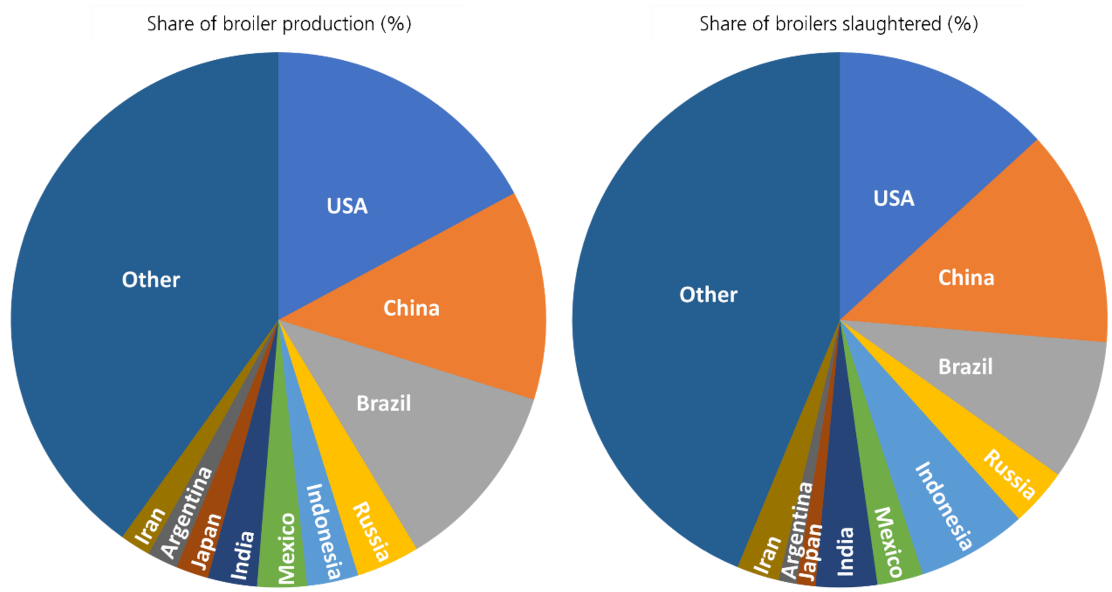

Figure 1. The main global chicken producing countries by share of global chicken meat production and chickens slaughtered (%) in 2020.

[i] Throughout this document, 'China' refers to mainland China (excluding Hong Kong, Taiwan and Macao).

Table 2. Top 10 broiler chicken producing companies globally. Source: Clements (2022)[2].

Company	Country	Broilers slaughtered annually (millions)
JBS S.A.	Brazil	4,426
Tyson Foods Inc.	USA	1,900
BRF	Brazil	1,732
Wen's Food Group	China	1,101
Wellhope Agri-Tech	China	695
CP Group	Thailand	685
Koch Foods Inc.	USA	655
Sanderson Farms Inc.	USA	635
Industrias Bachoco	Mexico	627
Cargill	USA	625

The largest chicken producing company, JBS S.A., is based in Brazil and owns Seara (Brazil), Pilgrim's Pride Corp. (USA), Pilgrim's de Mexico (Mexico), and Moy Park Ltd. (UK)

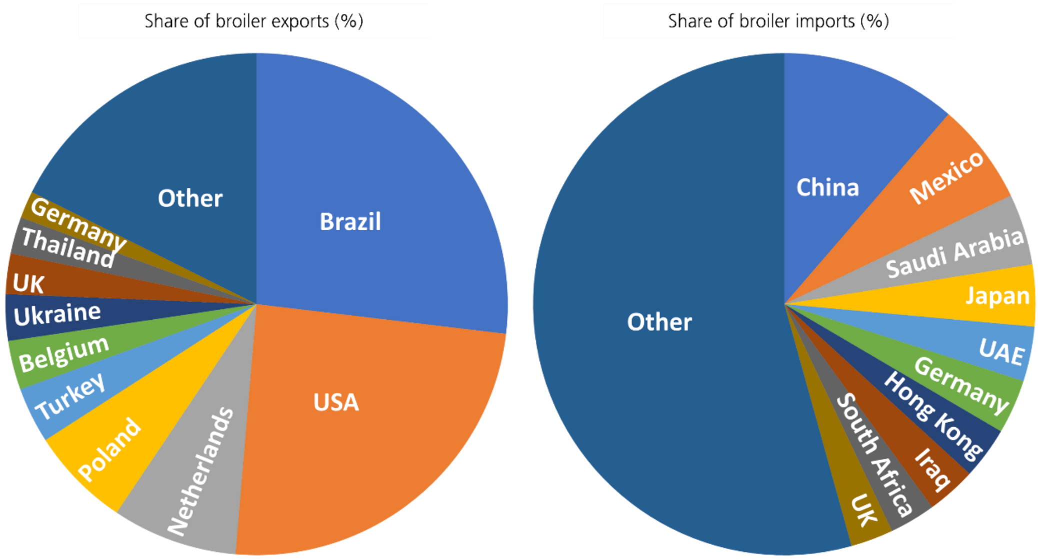

Figure 2. The main global exporters and importers of chicken meat by share of the market (% of tonnage) in 2020. Source: FAOSTAT.

Global chicken meat exports in 2020 totalled 14.5 million tonnes (around 12% of global production) with a value of US$ 21 billion[1].

In terms of chicken meat gross exports in 2020, the largest exporters are Brazil and the USA (Figure 2). Brazil exported 3.9 million tonnes, with a value of US$ 5.5 billion, mainly to China (17.3%), Saudi Arabia (12.0%) and Japan (10.3%). The USA exported 3.5 million tonnes, with a value of US$ 3.4 billion, mainly to Mexico (20.6%), China (14.6%) and Taiwan (6.9%)[1].

For chicken meat gross imports in 2020, the largest importers are China and Mexico. China imported 1.5 million tonnes with a value of US$ 3.4 billion, mainly from Brazil (45.0%), USA (26.8%) and Russia (9.5%). Mexico imported 0.9 million tonnes, with a value of US$ 731 million, mainly from the USA (93.6%), followed by Chile (5.6%) (Figure 2).

CONSUMPTION

Global poultry meat consumption in 2019 was more than 120 million tonnes, with the two largest consuming countries, China and the USA, each accounting for around 16% of the total, although per capita consumption in the USA is more than four times that in China (Table 3). Per capita poultry meat consumption is highest in Israel (and St Vincent and the Grenadines) at >70 kg/cap/yr[1]. Per capita supply has increased by 13% over the past decade globally, to around 16 kg/cap/yr (Table 3).

Table 3. Poultry meat consumption (measured as total and per capita supply available for human consumption) in the top 10 poultry meat consuming countries globally. Source: FAOSTAT[1].

Country	Total domestic supply 2019 (thousand tonnes)	Per capita supply 2019 (kg/cap/yr)	Per capita supply percentage change from 2010
World	123,269	15.9	13.2%
China	20,001	14.2	18.4%
USA	19,295	58.6	15.0%
Brazil	9,907	46.9	24.6%
Russia	4,608	31.4	40.6%
Mexico	4,543	46.9	48.6%
India	4,226	3.1	71.7%
Japan	2,552	19.3	13.4%
UK	2,336	33.1	15.2%
Iran	2,242	27.0	18.5%
South Africa	2,186	46.9	40.6%

BROILER CHICKEN PRODUCTION IN DIFFERENT SYSTEMS

Broiler chickens are primarily loose-housed on litter in large groups either in environmentally controlled housing or in open, naturally-ventilated poultry houses, although cages and perforated/net floor systems are common in some countries (e.g. China). 93.1% of chicken meat production globally is estimated to come from specialised (mostly highly intensive) broiler production systems, with 5.4% from layers and 1.5% from backyard systems which plays a significant role in some countries/regions[ii]. (Figure 3). There is no current accurate estimate for the percentage of broilers kept in intensive systems globally although there are estimates for some different global regions (see below).

Systems considered to provide higher welfare range from indoor systems with lower stocking densities (≤ 30 kg/m^2) and enrichment (perches, pecking substrates, natural light), to free-range and organic systems. As breed and growth rate potential is strongly linked to broiler welfare, higher welfare systems may also use breeds with a slower growth potential. Minimum requirements for higher welfare indoor systems have recently been defined by the European/Better Chicken Commitments[iii]. While estimates of production for these systems are not yet available, over 500 leading food companies are adopting the BCC/ECC.

AFRICA: Sub-Saharan Africa is the region with the largest share (14.9%) of chicken meat production from backyard systems, with 78% coming from specialised broiler systems, and 7.1% from layers (Figure 3). In the West Asia/North Africa region, 92.7% of chicken meat is from specialised broiler systems, with 6.4% from layers, and 0.9% from backyard systems (Figure 3).

[ii] FAO defines backyard systems as: Production that is mainly subsistence-driven or for local markets, displaying animal performance lower than in commercial systems and mostly relying on swill and locally-sourced materials to feed animals (less than 20 percent of purchased concentrate).
[iii] https://betterchickencommitment.com/

ASIA: In East Asia, 85.7% of chicken meat is from specialised broiler systems, 11.9% from layers, and 2.4% from backyard systems (Figure 3). In South Asia, 93.6% of chicken meat is from specialised broiler systems, 3.6% from layers, and 2.8% from backyard systems (Figure 3). The chicken meat market in China is made up of 57% white-feathered (fast-growing) broilers, 27% yellow-feathered local breed (medium-/slow-growing) broilers, 10% small '817' (fast-growing hybrid) chickens, and 6% meat from ex-layers (data for 2021[3]). Large-scale producers account for around 70% of white broiler production in China[4] and these birds are mostly reared in cages or in perforated/net floor systems[5,6]. Less than 1% of Chinese chicken meat is produced in organic systems (11,500 tonnes in 2018 out of total chicken meat production of 14.4 million tonnes)[7]. In Thailand, backyard chicken production has been largely replaced with vertically-integrated industrial production in closed housing with ventilation/evaporative cooling (the share of chicken production from backyard producers with <20 birds fell from 9.2% in 1993 to 0.7% by 2013)[8].

EUROPE: In the EU, it is estimated that around 90% of broilers are reared in intensive indoor production systems[9], while 5% are reared in less intensive indoor systems, 5% and 1% in free range systems and organic systems respectively[10]. In terms of breed, in 2019 it was estimated that between 2 and 5% of broilers were from slower growing breeds[10]. Over 300 leading food companies across Europe have committed to adopt the ECC. Some European countries have a significant proportion of production from higher-welfare systems, e.g. in France in 2021, 15% of broiler chicken production was from Label Rouge (free range, slower-growing), 7% CCP (Certificat de conformité produit: indoors, slower-growing breeds with a minimum slaughter age of 56 days), and 2% organic[11]. Free-range (excluding organic) chicken accounts for around 13% of the retail market and 3-4% of the total market in the UK[12]. Slower-growing chickens account for 40% of production (and 100% of the fresh retail market) in the Netherlands, 24% of production in France, and 11% of production in the UK[13]. Premium concept chicken (of various types but typically incorporating additional welfare requirements) accounted for an estimated 8% of the market across the EU in 2019, and is expected to reach 15-20% of the market by 2025[13].

LATIN AMERICA: In Central and South America, 97.2% of chicken meat is from specialised broiler systems, 2.4% from layers, and 0.4% from backyard systems (Figure 3). In Brazil, 98% of broilers are reared in intensive systems[14], where housing systems typically have an open-sided design (wire mesh sides with curtains) with natural light, deep wood-shavings litter, and a stocking density of around 30kg/m^2 or less[15].

NORTH AMERICA: The vast majority of broiler chickens in North America are kept in intensive systems. In the USA, conventional industrial chicken production made up 57.4% of US chicken sales, with 36.8% from chicken raised without antibiotics, and 5.9% organic in 2021[16]. Over 200 leading food companies in the US have already committed to adopt the BCC.

OCEANIA: An estimated 98.5% of chicken meat in Oceania is produced in specialised broiler systems, 1.4% from layers, and 0.1% from backyard systems (Figure 3). Production and demand for free-range chicken meat has grown strongly in Australia in recent years and accounts for around 15% of the market[17,18].

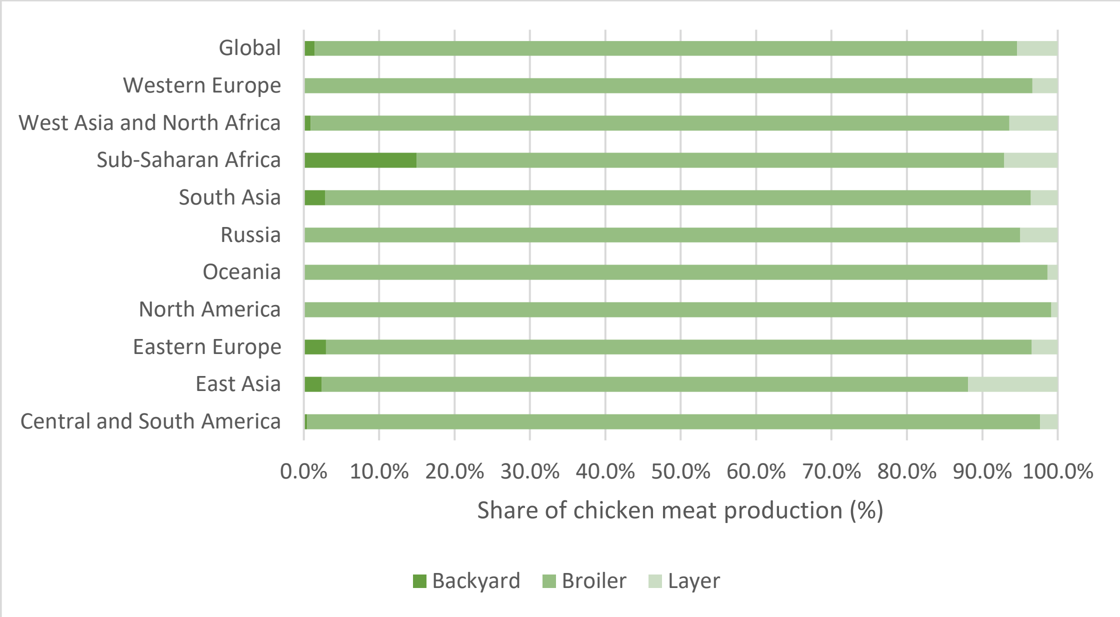

Figure 3. Share of chicken meat production from backyard systems, specialised broiler production systems, and layer systems, globally and in various world regions. Source: FAO GLEAM database v3.0[19].

PRODUCTION COSTS

In a comparison of production costs for conventional and higher-welfare indoor broiler systems across Brazil, USA and The Netherlands, costs across almost all production systems were lowest in Brazil and highest in The Netherlands[21]. Feed was the largest contributor to production costs (58% to 70% of total costs) in all systems (Table 4). In terms of system, it was found that the middle-segment production systems, termed the "Global Welfare Standard", could provide a good increase in welfare relative to conventional systems at a high cost-efficiency i.e. only a relatively small increase in costs[21]. A 2021 study across six different EU countries estimated adopting the ECC would lead to an average increase of +19% in production costs[20].

Table 4. Breakdown of chicken meat production costs (in eurocents per kg live weight) in various countries and production systems (Conv = Conventional, NDRS = New Dutch Retail Standard, GWS = Global Welfare Standard – A hypothetical higher welfare indoor system including slower growing breeds, max. stocking density of 30kg/m2, natural light, and environmental enrichment) Source: Vissers et al. (2019)[21].

Country	Production System	Variable Costs							Fixed Costs				
		Feed	Day-old chicks	Animal health	Litter	Grain and straw	Catching	Other variable costs [1]	General	Labour	Housing	Equipment	Total
The Netherlands	Conv-NL	52.7	13.7	2.0	0.4	0	2.1	4.3	0.8	2.7	3.6	2.1	84.3
	NDRS	61.5	14.0	1.5	0.6	0.6	2.0	5.0	0.8	3.5	5.1	3.1	97.7
	GWS	61.5	14.0	1.5	0.6	1.4	2.0	5.7	0.8	6.0	6.4	4.3	104.1
	Extensive indoor+	68.3	14.6	1.6	1.0	0.8	2.1	7.6	0.7	4.8	9.7	5.8	116.9
United States	Conv-US	48.9	9.3	1.7	0.2	0	0.2	3.6	0.7	1.5	2.3	1.7	70.1
	Enriched environment	48.9	9.3	1.7	0.2	0.6	0.2	4.7	0.7	2.3	2.7	2.1	73.4
	GWS	53.3	10.0	1.3	0.2	0.7	0.9	5.2	0.7	1.8	3.1	2.6	79.8
Brazil	Tunnel ventilated	42.2	9.1	1.2	0	0	0.2	1.5	0.4	1.5	2.0	2.5	60.6
	Conv-BR	42.2	9.1	1.2	0	0	0.2	2.9	0.4	2.0	1.8	2.2	62.0
	GWS	46.3	9.9	0.9	0.2	0.7	0.2	3.8	0.4	2.3	2.8	4.0	71.5

[1] Includes: heating, water, electricity, dead bird disposal and other.

LEGISLATION

There is currently no specific legislation covering the welfare of broiler chickens in the main producing countries – USA, China and Brazil. In the EU, minimum standards for the protection of broiler chickens are laid down in Council Directive 2007/43/EC.

	Minimum standards for the protection of broiler chickens in the UK are laid down in The Welfare of Farmed Animals (England) Regulations 2007 (as amended, and related Regulations in other parts of the UK), including stocking densities (up to 39 kg/m^2 permitted), provision of litter, and welfare monitoring. Most mutilations are prohibited for chickens reared for meat, as set out in The Mutilations (Permitted Procedures) (England) Regulations 2007 (as amended, and related Regulations in other parts of the UK).
	Minimum standards for the protection of broiler chickens in the EU are laid down in Council Directive 2007/43/EC of 28 June 2007, including stocking densities, provision of litter, welfare monitoring, and mutilations (see 'Information Sheet 1 – Chicken Meat Production – Europe' for further information regarding legislation for meat chickens in the EU). Some European countries have additional requirements to those outlined in Council Directive 2007/43/EC.
	There is currently no specific legislation establishing minimum welfare standards for broiler chickens in the USA. A proposal to establish standards governing the humane handling, care, treatment, and transportation of birds (excluding birds bred for use in research) under the Animal Welfare Act was published in the Federal Register on 22 February 2022. The proposal was open to comments until 25 April 2022 and a final version is in preparation.
	There is currently no specific legislation establishing minimum welfare standards for broiler chickens in China.
	Brazil has general anti-cruelty legislation but there is currently no specific legislation establishing minimum welfare standards for broiler chickens in Brazil.

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