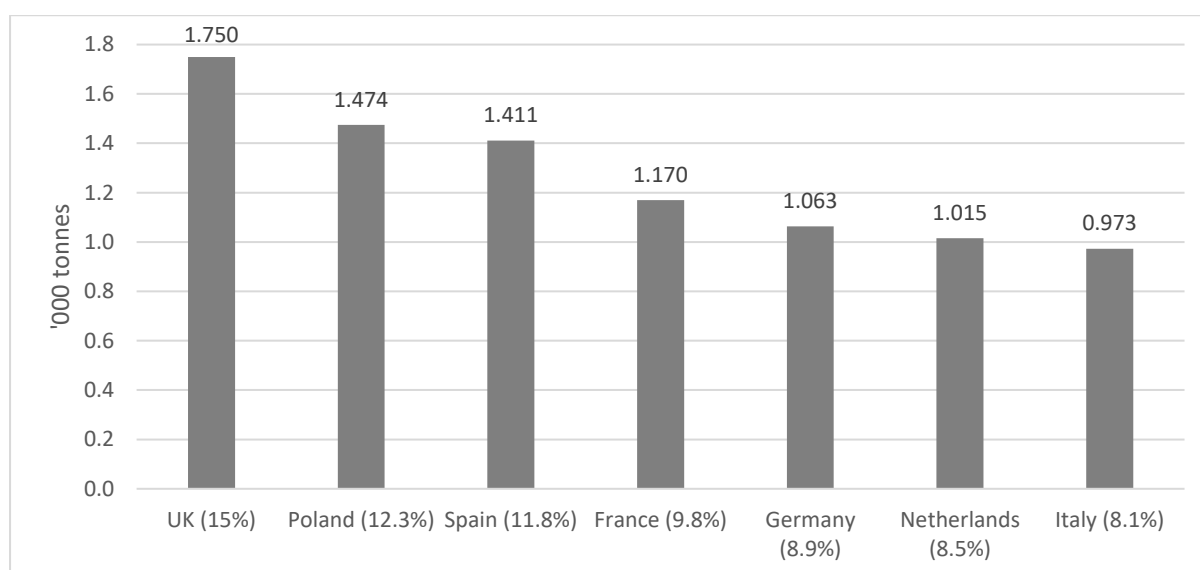


Chicken meat production data

Production

Over 7.2 billion broiler chickens are slaughtered for meat in the EU-27 each year (FAOSTAT, 2018), producing around 12 million tonnes of chicken meat, with an average per capita consumption of 24.1 kg/year (Avec, 2018). The top seven chicken meat producing countries of the EU-27 are shown in Figure 1, and account for 74% of the total EU production. The UK is the largest producer, with Poland, France, Germany and Spain producing similar amounts.

Figure 1. Top 6 chicken meat producing countries in the EU ('000 tonnes) by country (% share of total production). FAOSTAT, 2018

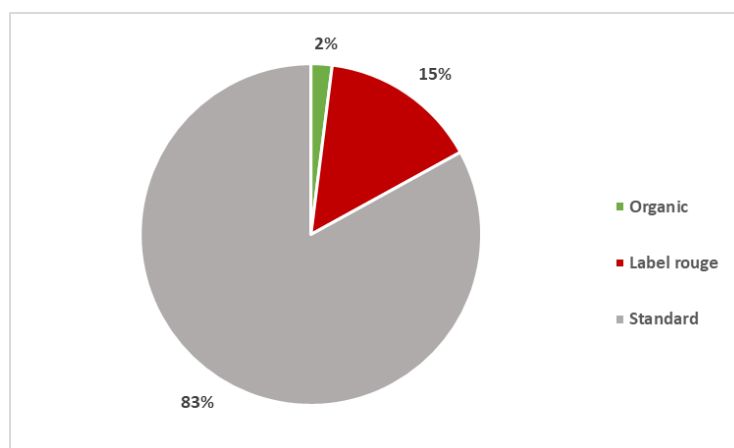


The UK is the world's 14th largest producer, accounting for 1.5% of global production. The U.S (17.1%), China (13.1%) and Brazil (12.2%) are the top global producing countries, collectively accounting for 42.4% of total production (FAOSTAT, 2018). In 2010, the EU exported 5.06 million tonnes and imported 3.9 million tonnes of poultry meat (FAOSTAT, 2017). Globally, Brazil and the U.S. are the largest exporters (46.5% of total export share); the Netherlands, France, UK, Belgium and Poland are all in the top 10 global exporters (FAOSTAT, 2017, including canned chicken meat). Japan and Hong Kong are the largest importers (13% of total import share); Germany is 5th and France is the 9th (FAOSTAT, 2017).

Most broilers in the EU (approximately 90%) are produced under standard intensive systems, in flocks of up to 50,000 birds or more, in houses with controlled temperature, light and ventilation; there is litter on the floor and often the houses are windowless. The broilers are of fast growth breeds and are fed nutrient dense diets usually inclusive of coccidiostats, synthetic amino acids, and genetically modified ingredients. They are grown indoors and are slaughtered from as early as 35 days. Alternative systems exist for both indoor broilers and where outdoor access (free range and organic) is given. The proportion of broilers reared in different production systems are shown for the France in Figure 2. According to Poultry World, just 11% of UK chicken production is slower growing,

meaning that 89% of UK chickens are fast growing breeds, typically associated with intensive systems. This is compared to Dutch and French production, whereby 40% and 24% of production is slower growing respectively (Poultry World, 2019).

Figure 2. The proportion of broilers produced under different standards in France (from Volaille Francaise, 2018)



Legislation

Minimum conditions for the protection of meat chickens are set out in the revised EU directive (Council Directive, 2007) which came into force in June 2010. Alternative systems are defined in EU marketing terms (Commission Regulation, 2008), organic legislation (Council Regulation, 1999) and various accredited assurance schemes, (see Jones and Burk 2012 for full details). Table 1 summarises the legislative requirements. Maximum indoor stocking density in the UK is limited to 39kg/m² by legislation (Welfare of Farmed Animals, 2007), 38kg/m² by industry assurance scheme (Red Tractor, 2019) and 30kg/m² by RSPCA Freedom Food Indoor (RSPCA, 2011). Legal minimum in Sweden is 36kg/m² if participating in an animal welfare programme for chickens, 35kg/m² in Germany, and 38kg/m² in Spain (34kg/m² in summer if no forced ventilation) (Sheppard and Edge cited by European Parliament, 2010).

Table 1. EU Legislative requirements for standard and alternative broiler production systems

	Council Directive, 2007	Barn (Commission Regulation, 2008)	EU free range (Commission Regulation, 2008)	EU Traditional free range (Commission Regulation, 2008)	Organic
Min age	-	56	56	81	Any age if slow growth rate (GR) and parent organic; 70d if parents not organic; 81d fast GR
Max area (birds/m ²)	-	15	13	Fixed: 12 Mobile 20*	Fixed:10 Mobile: 16*
Max SD (kg/m ²)	33 (D1: 39, D2: 42)	25	27.5	Fixed:25 Mobile:40*	Fixed: 21 Mobile: 30*
Breed	-	-	-	Slow	Slow & fast
Feed	-	Min 65% cereal	Min 70% cereal in finishing phase	Min 70% cereal in finishing phase	No synthetic AA or feed additives 100% organic (5% non permissible) Soluble grit at all times
Light	Min 20 lux over 80% floor area Min 6h D (4h uninterrupted)				Can use artificial light to 16h, must have dusk
Ventilation	NH ₃ <20ppm CO ₂ <3000ppm Cope with a 3°C temperature lift, when 30°C or more in the shade RH <70% when outside <10°C				
Enrichment	It is recommended that producers explore different types of environmental enrichment				Perches Dust bathing areas outdoor Drinkers outdoor Soluble grit at all times
Outcome measures	Monitor Hockburn & FPD Not normally exceed: - 5.0% mortality - 1.5% PMI - 1.5% hock				
Minimum outdoor access (d)			½ life	From 6 weeks	2/3 of life
Outdoor area (m ² /bird)			1	2	2500birds/ha (4m ² /bird)

Popholes			Min height: 40cm 4m/100m ²	4m/100m ²	4m/100m ²
Other			Fixed: natural shelter should be encouraged	Max 1600 m ² house area/unit No more than: - 4800 birds/house - 400m ² /house	Max 1600 m ² house area/unit Work towards <500

D1 - Derogation 1: producers can stock up to 39 kg/m² if documentation conforms (must include mortality data and hybrid/breed) and environment parameters maintained: Ammonia <20ppm, CO₂< 3000ppm at chicken head height; inside temperature not exceed outside temperature by more than 3°C when outside temperature in shade exceeds 30°C; average RH inside house during 48 hours does not exceed 70% when outside temperature is below 10°C.

D2 - Derogation 2: producers can stock up to 42kg/m² if 2 years of monitoring indicate no deficiencies, at least 7 successive flocks accumulative mortality is below 1% plus 0.06% x slaughter age of flock in days (e.g. 3.38% at 38 days).

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