(A)

ESTIMATE OF GLOBAL PRODUCTION

estimated global egg production

$E_{egg} \approx 0.01 \cdot E_{day} \approx 20$ kcal / day

$\rho_{egg} \approx 1$ kcal $\cdot$ g^{-1}

$$m_{egg} \approx \frac{20\ \text{kcal}}{\text{day} \cdot \text{person}} \cdot \frac{1\ \text{kg}}{1000\ \text{kcal}} \cdot \frac{365\ \text{days}}{1\ \text{year}} \cdot \frac{7 \cdot 10^9\ \text{people}}{\text{planet}}$$

$$\sim 5 \cdot 10^{10}\ \text{kg} \cdot \text{year}^{-1} \sim 50\ \text{Mt} \cdot \text{year}^{-1}$$

estimated global poultry production

$E_{poultry} \approx 0.05 \cdot E_{day} \approx 100$ kcal / day

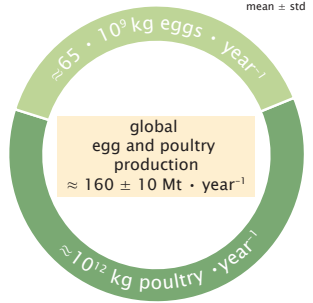
$\rho_{poultry} \approx 1$ kcal $\cdot$ g^{-1}

$$m_{poultry} \approx \frac{200\ \text{kcal}}{\text{day} \cdot \text{person}} \cdot \frac{1\ \text{kg}}{1000\ \text{kcal}} \cdot \frac{365\ \text{days}}{1\ \text{year}} \cdot \frac{7 \cdot 10^9\ \text{people}}{\text{planet}}$$

$$\sim 5 \cdot 10^{11}\ \text{kg} \cdot \text{year}^{-1} \sim 500\ \text{Mt} \cdot \text{year}^{-1}$$

AGGREGATED DATA

data source: FAOSTAT (2010–2018)
mean ± std



(B)

ESTIMATE OF GLOBAL PROCCESSING

total global egg laying chickens per year

$m_{egg} \sim 5 \cdot 10^{10}$ kg $\cdot$ year^{-1}

$$m_{egg\ production} \approx \frac{0.05\ \text{kg}}{\text{egg}} \cdot \frac{350\ \text{eggs}}{\text{chicken} \cdot \text{year}} \approx 20\ \frac{\text{kg egg}}{\text{chicken}}$$

$$N^{(egg)}_{chicken} \approx \frac{5 \cdot 10^{10}\ \text{kg}}{\text{year}} \cdot \frac{1\ \text{chicken}}{20\ \text{kg egg}}$$

$$\approx 3 \cdot 10^9\ \text{layer chicken} \cdot \text{year}^{-1}$$

total global poultry chicken per year (slaughtered)

$m_{chicken} \sim 5 \cdot 10^{11}$ kg $\cdot$ year^{-1}

$m_{edible} \approx 2$ kg $\cdot$ chicken^{-1}

$$N^{(poultry)}_{chicken} \approx \frac{5 \cdot 10^{11}\ \text{kg}}{\text{year}} \cdot \frac{1\ \text{chicken}}{2\ \text{kg}}$$

$$\sim 10^{10}\ \text{poultry chicken} \cdot \text{year}^{-1}$$

AGGREGATED DATA

data source: FAOSTAT (2010–2018)
mean ± std