

# Flock health and other challenges in cage-free and outdoor environments

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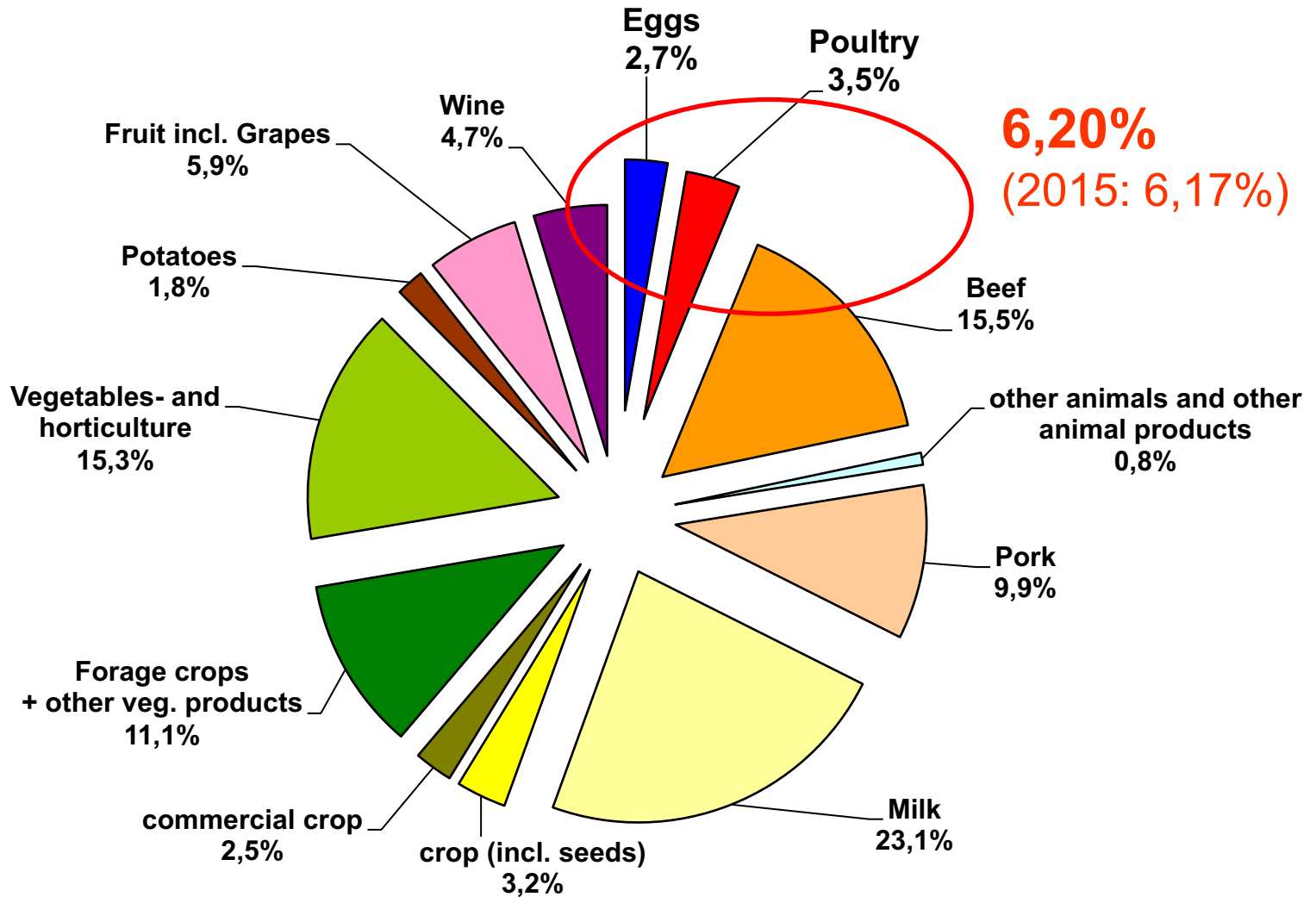
# Content

- Situation in Switzerland
- Numbers
- Regulation / Law
- Management
- Reasons for losses / Diseases
- Take home message

# Europe



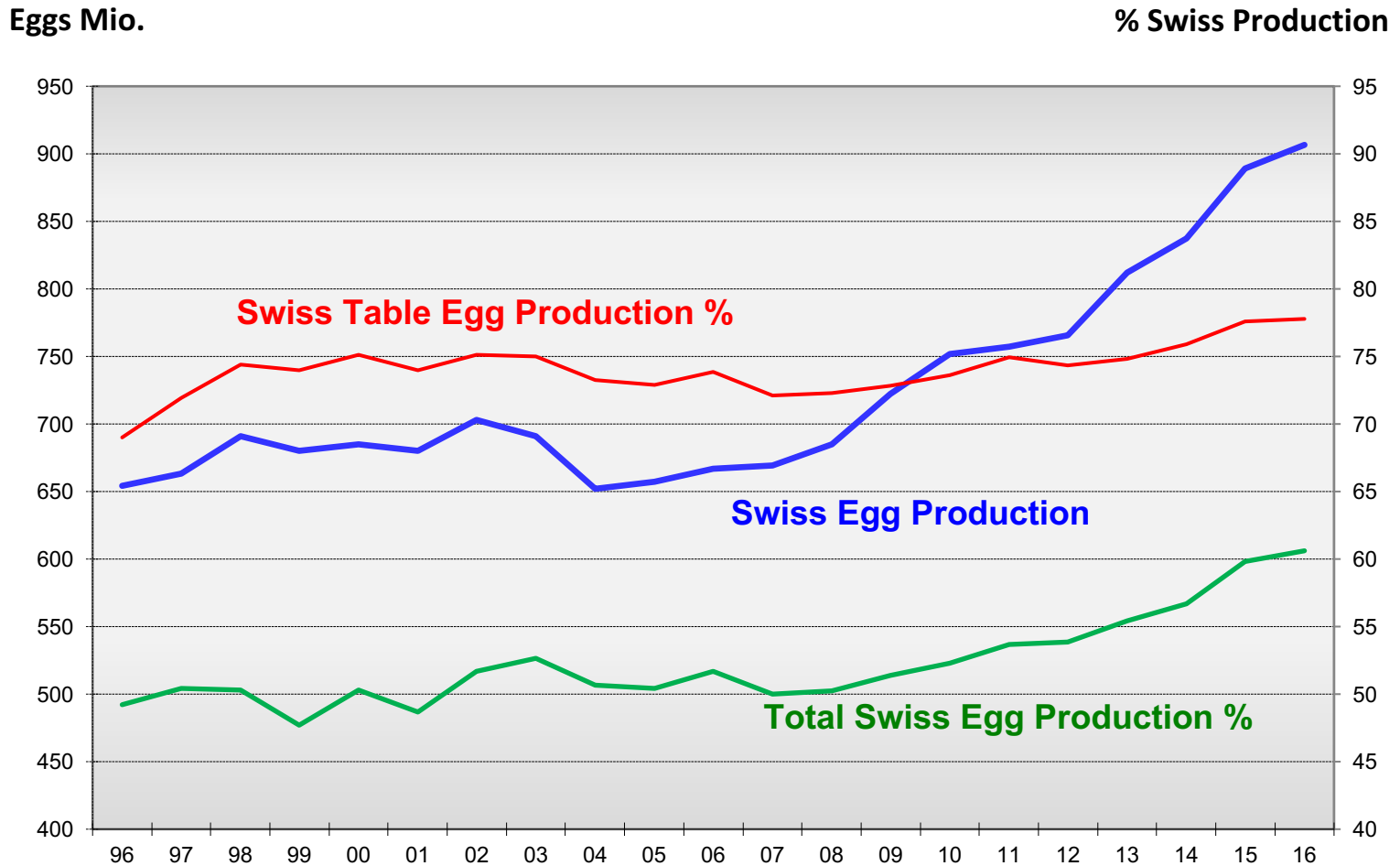
# production value of the Swiss Agriculture in 2016 (estimate)



# Statistics (in mio.)

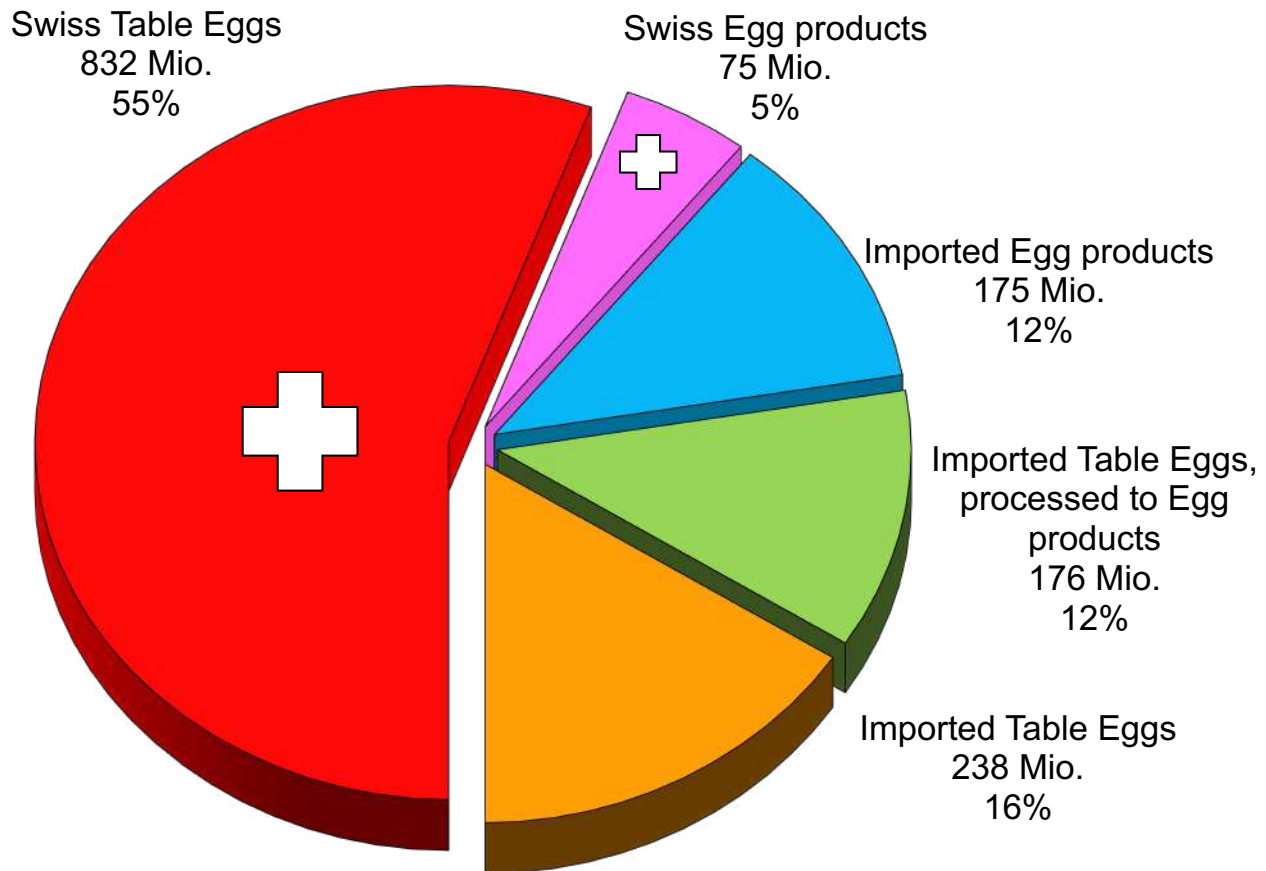
	<b>2013</b>	<b>2014</b>	<b>2015</b>
Poultry in total	10,00	10,64	10,8
Layers	<b>2,42</b>	<b>2,51</b>	<b>2,65</b>
Pullets	1,05	1,2	1,03
Broiler	6,36	6,78	6,90
Poultry owner	11'982	11'953	12'065

# Growth of Swiss Egg Production



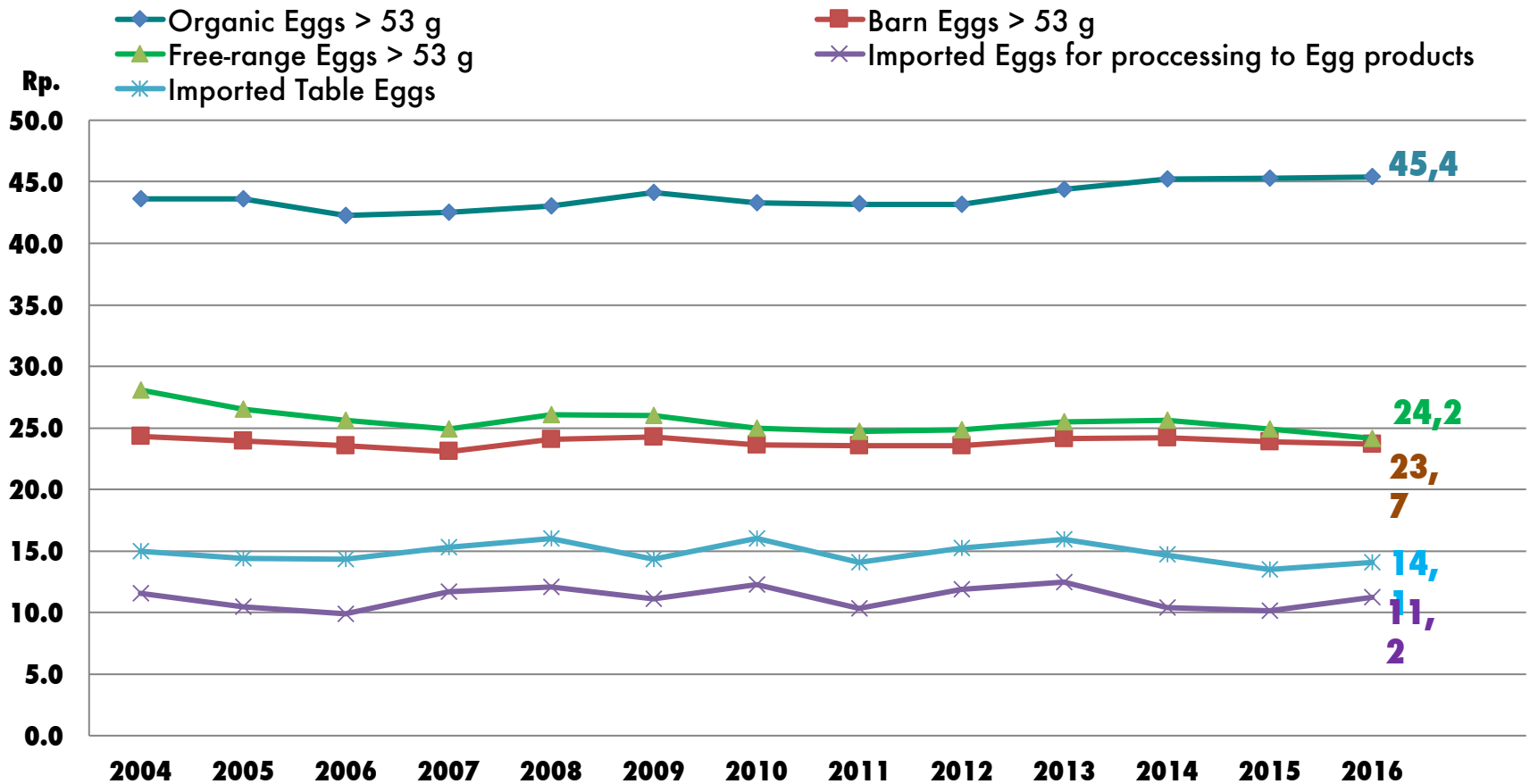
**Growth last 12 years: +39%**

# Egg consumption 2016



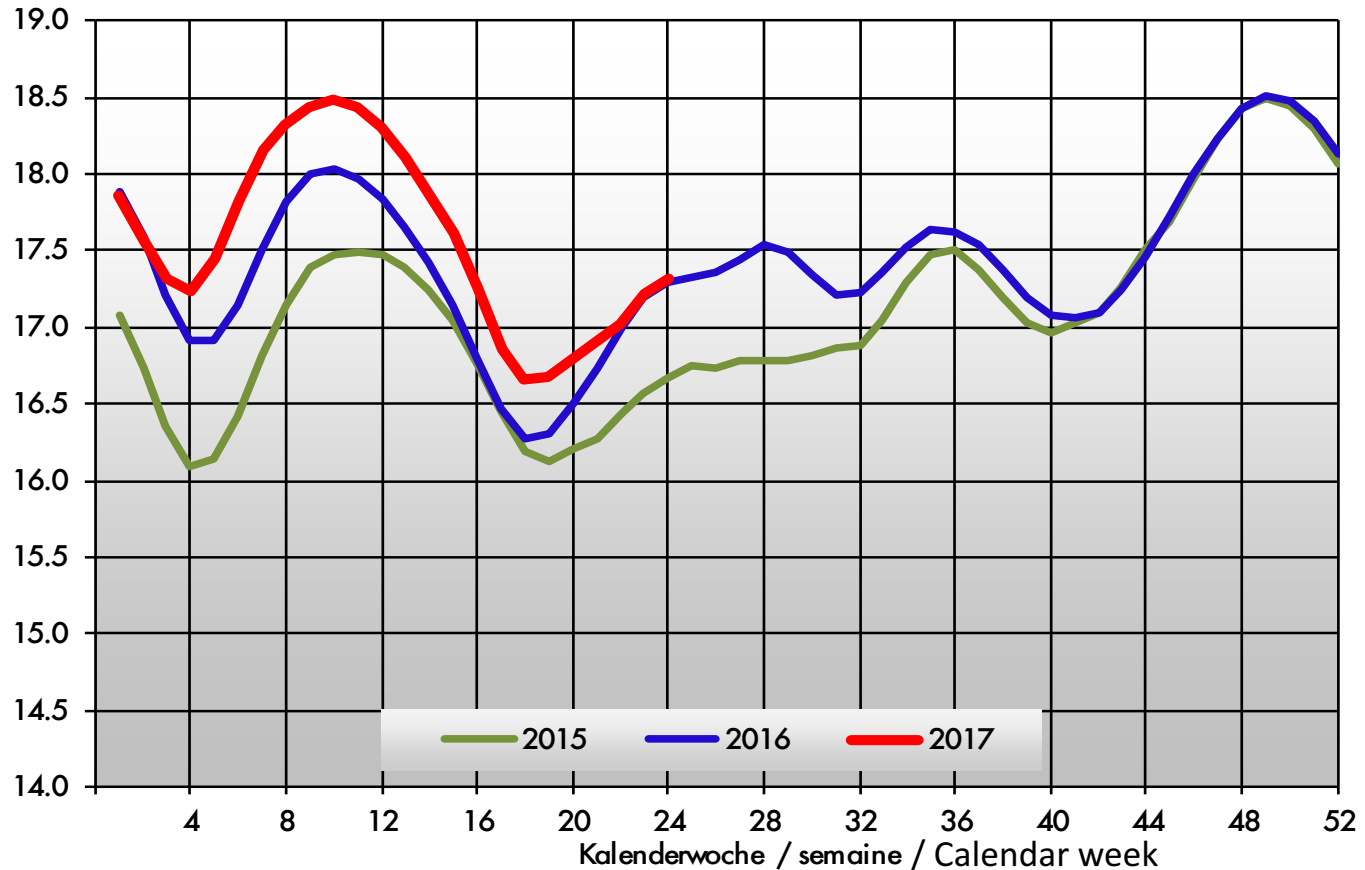
Swiss Share:  
Table Eggs: 77.8%  
Total: 60.6%

# Average Price of Egg payed to the producer in Switzerland / Import prices



# Seasonal Swiss Egg production

Mio. Eier / mio d'œufs / Eggs (Mio.)



# Swiss regulatory framework

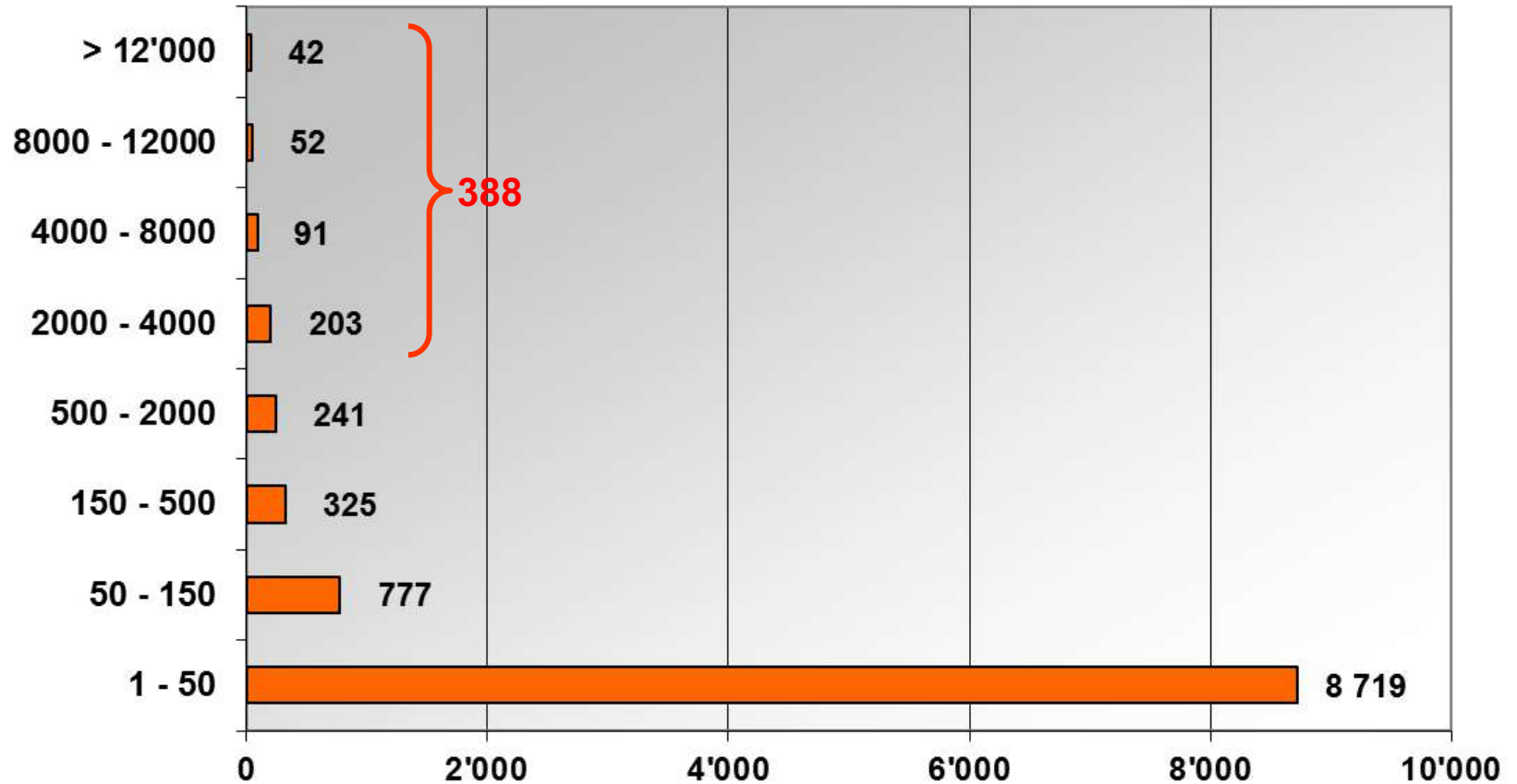
- Regulation on flock size
- Animal protection law
- Regulation on animal protection
- Animal welfare programs by the government
  - Regulation on especially animal friendly housing systems
  - Regulation on free-range
- Swiss Guarantee
- Regulation on organic farming
- Label

# Regulation on flock size

- Layers: 18'000
- Organic farming: 2000 per building, max. 2 buildings per farm
- Broiler: 18'000, depending on the length of fattening, max. 30 kg/m<sup>2</sup> (6.14 pounds / sq.ft)
- Turkeys: 9000 first 4 weeks / 4500 fattening
  - Up to end of 6th week: 32 kg/m<sup>2</sup>
  - From 7th week onwards: 36.5 kg/m<sup>2</sup>

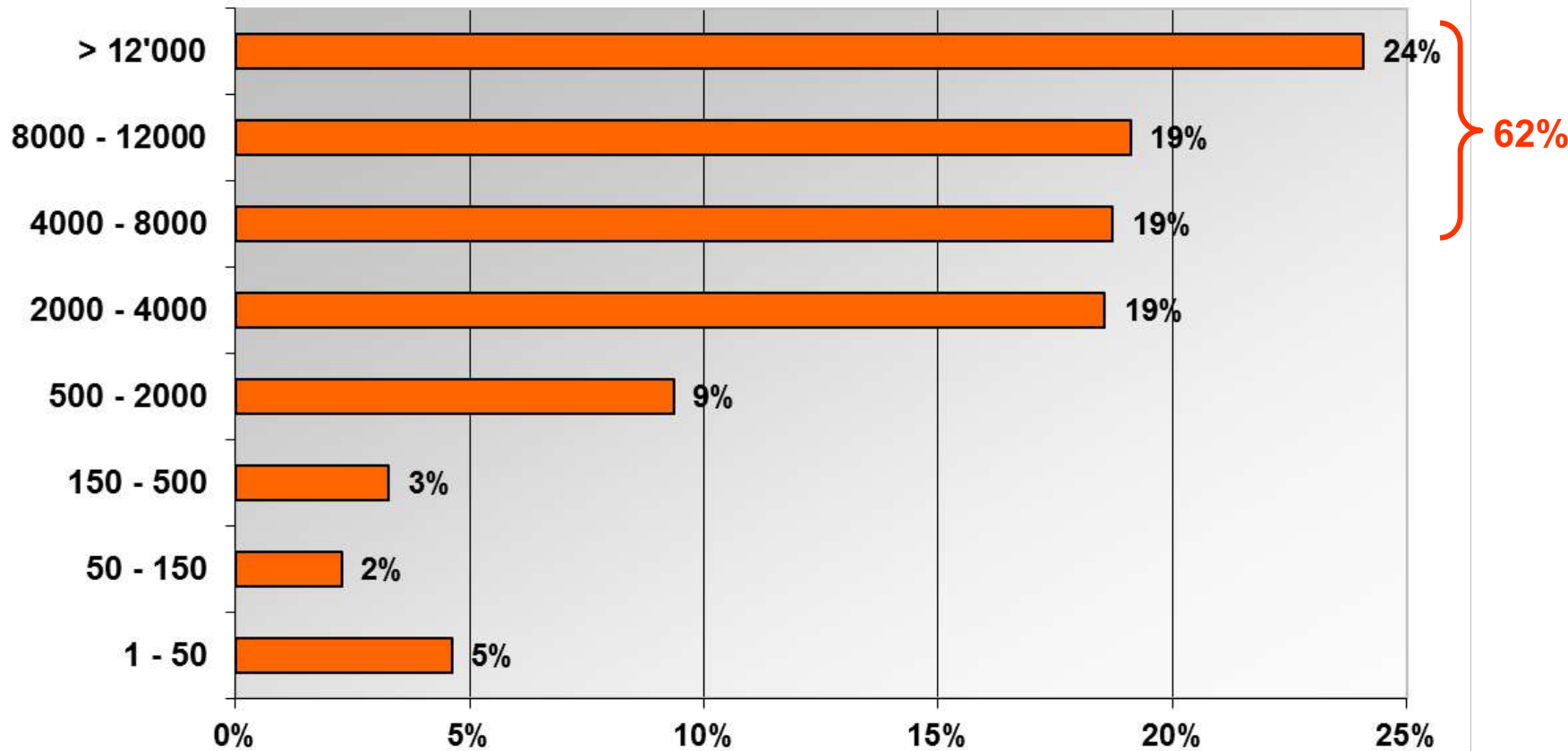
1 m<sup>2</sup> = 10.7637 sq.ft; 1kg = 2.2046 pounds

# Swiss layer farms per flock size 2015



Source: BfS

# Swiss layers in flock sizes 2015



Source: BfS

# Animal protection law

- Cages banned since 1992
- Transport of animals (Art. 15): duration no longer than 6 hours
- ....

# Regulation on animal protection

## Forbidden treatments on poultry (Art. 20)

- Beak-trimming
- Cutting of the comb and clipping of the wings
- Withdrawing water for induction of moulting
- Production of foie gras
- Plucking feathers of living poultry

# Regulation on animal protection

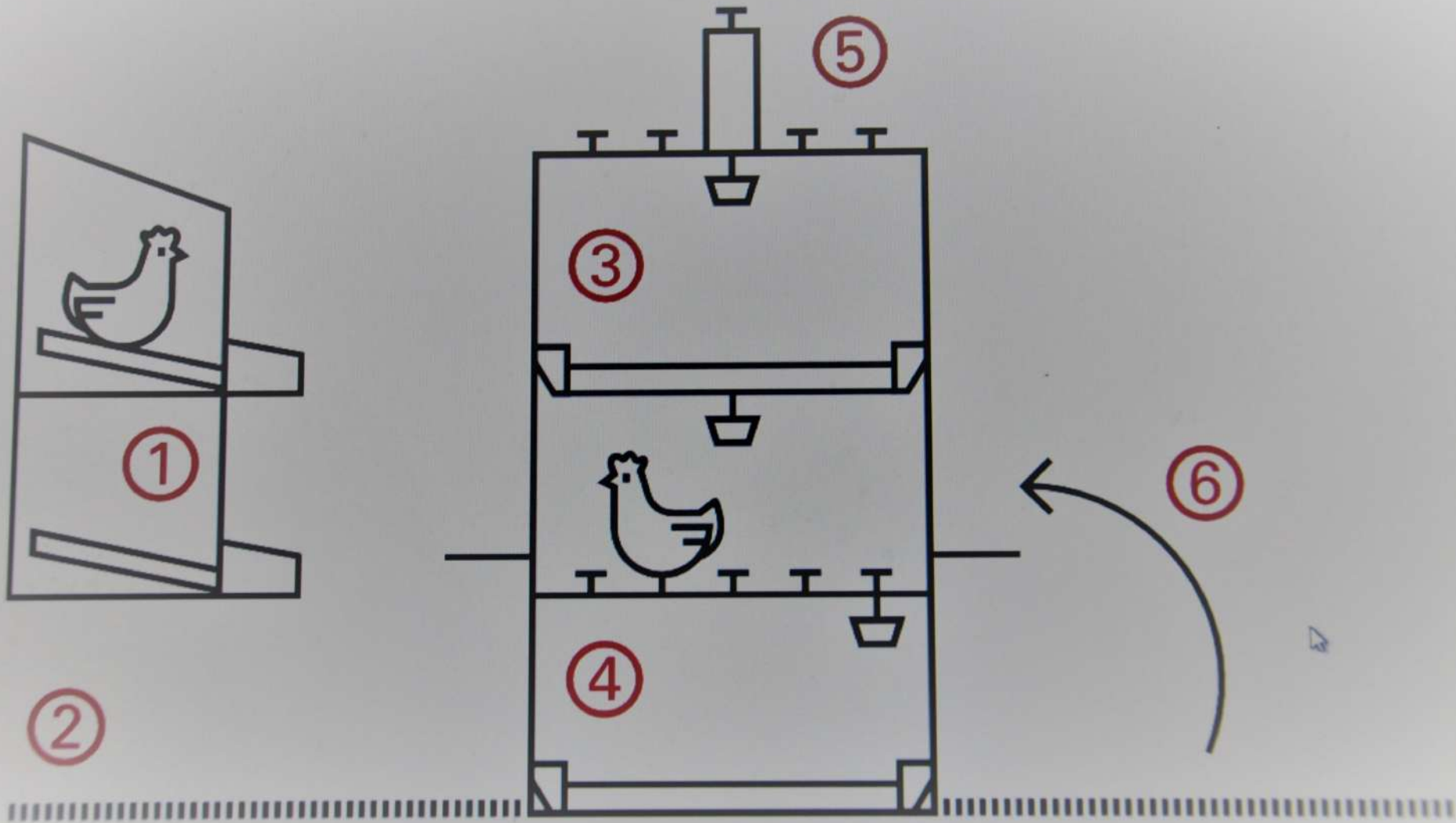
## Lighting (Art. 33)

- No permanent dark phase
- Main whereabouts in poultry house: daylight
- Lighting intensity: poultry minimum 5 Lux
- Lighting phase no longer than 16 hours,  
Exception: chicks in the first 3 days of life
- No interval lighting programs

# Regulation on animal protection

## Furnishing and fittings for poultry and pigeons (Art. 66)

- Litter: at least 20% of the walkable ground must be covered with litter material
- Protected single or family nests
- Elevated sitting on different heights for rearing, layer and parent stock of chicken as well as for guinea fowl and house pigeons



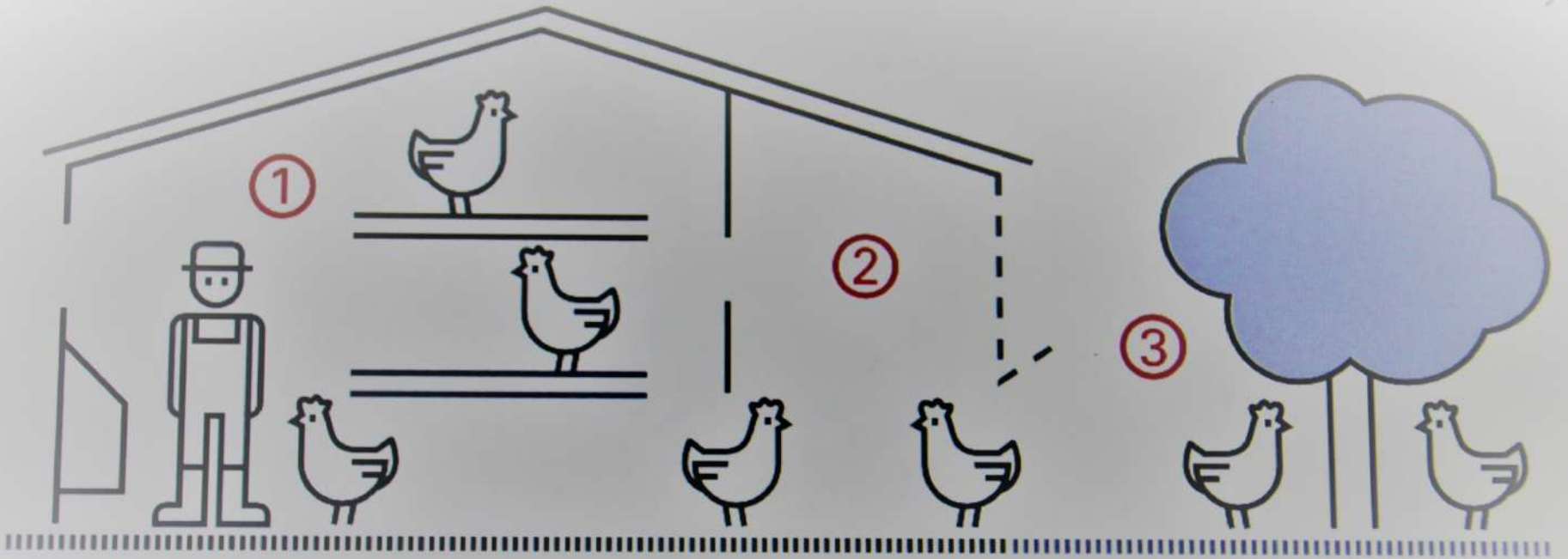
# Especially animal friendly housing system

- Lighting 15 Lux
- Elevated perches and sitting
- Covered and protected out-door area (wintergarden)
  - Fully covered
  - Litter
  - Journal for daily documentation of allowed access
  - Layers: min. 43 m<sup>2</sup> / 1000 animals (1 m<sup>2</sup> = 10.7637 sq.ft)
  - Daily access: rearing from 43<sup>rd</sup> day of life









# Free-range

- Pasture
  - Mainly overgrown with grass
  - Hides for protection as trees, bushes and artificial structures
  - Access to free-range at 1 pm until 4 pm at the latest (but at least 5 hours daily)
    - Exceptions: during or after heavy shower, strong winds, snow, very low temperatures
    - Uncovered restricted outdoor area instead of pasture when ground is soaked or in dormancy
  - Journal for daily documentation of access to free-range



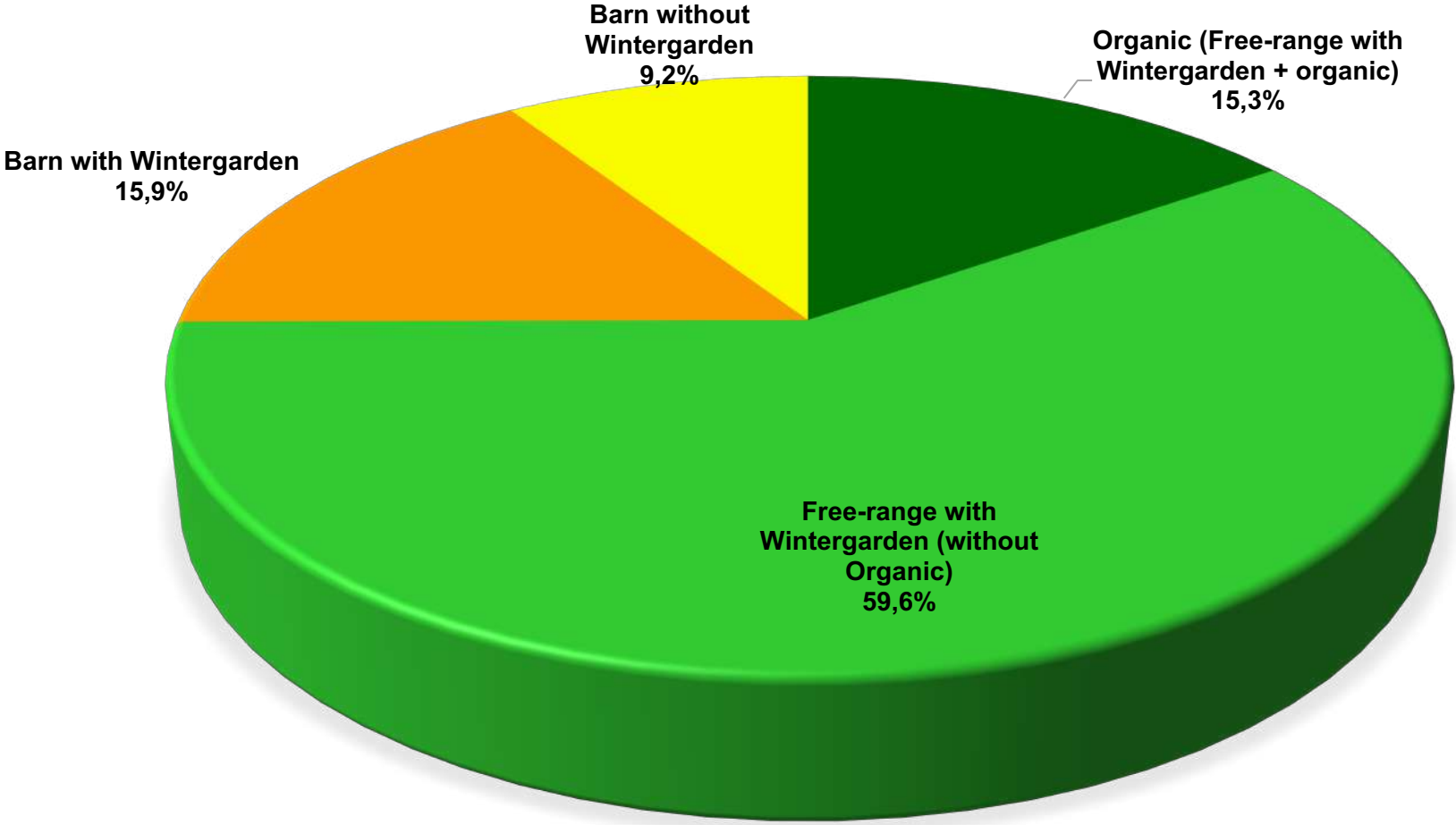






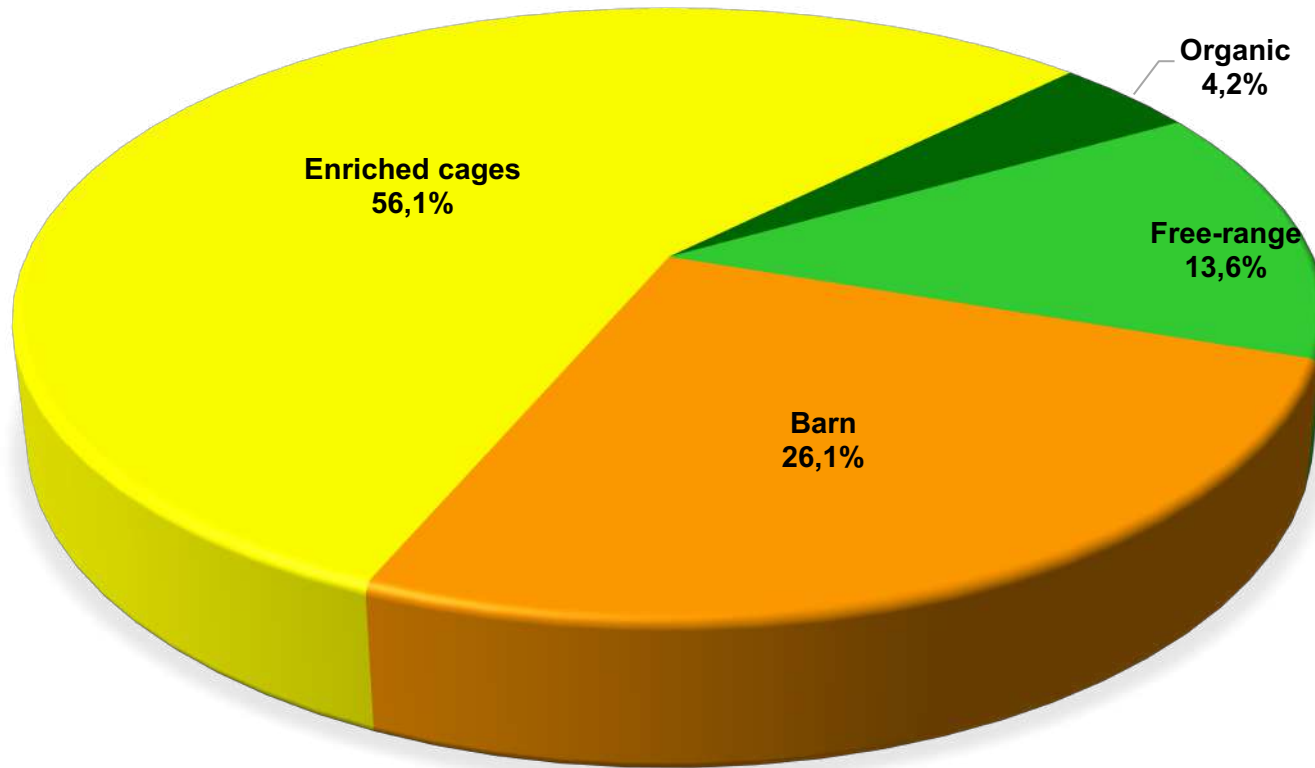


# PRODUCTION FORMS OF SWISS LAYERS IN 2015



**Free-range: 74,4%**

# IN COMPARISON: PRODUCTION FORMS OF LAYERS IN EU 2015



**Free-range: 17,8%**

Percentage of EU layers

Source: MEG

# Swiss Guarantee - Eggs

- Table Eggs and Egg Products with the label Swiss Guarantee have to be laid by hens in Switzerland that had been hatched in Switzerland. The layer parents have to be kept in Switzerland too.
- Feed has to be mixed in Switzerland. Ingredients have to be free of genetically modified organisms.



# Problems in cage-free housing systems

- Adaptation of the fittings in the rearing house to the layer house system
  - The chicken needs to learn to use the different levels and equipment
- Floor eggs
  - Lighting
  - Litter management
  - Management
- Suffocation by piling up
  - Corners
  - Ray of light in the house or wintergarden
  - Unusual noise (thunderstorm, aircraft)





# Problems in cage-free housing systems: feather pecking and / or cannibalism

- Check feed contents
  - Protein
  - Crude fiber
  - Supplementation of minerals and vitamins
- Parasitic burden
  - Intestinal Worms
  - Poultry red mite
- Lighting
  - No direct sunlight
  - Dim the light
- Occupy the chicken
  - Straw / hay
  - Empty PET-bottles
  - Old CD's



# Diseases in free-range

- Bacterial
  - Mycoplasma
  - Pasteurellosis
  - Salmonella
  - Erysipelas
  - Coryza
- Viral
  - Avian influenza
  - Newcastle Disease
  - Pox
- Parasitic
  - Intestinal worms
  - Poultry red mite
  - Coccidiosis
  - Histomoniasis

# Take home message

- Change rearing first
- Always adapt system in layer poultry house to rearing house or vice versa

# Predators in free-range

- Red Fox
- Beech Marten
- Hawk
- Broiler chickens and pullets (organic):
  - Cats
  - Crows



Thank you very much for your  
attention

