



# Housing and Management of Broiler and Turkey Breeders

## Turkey Breeders

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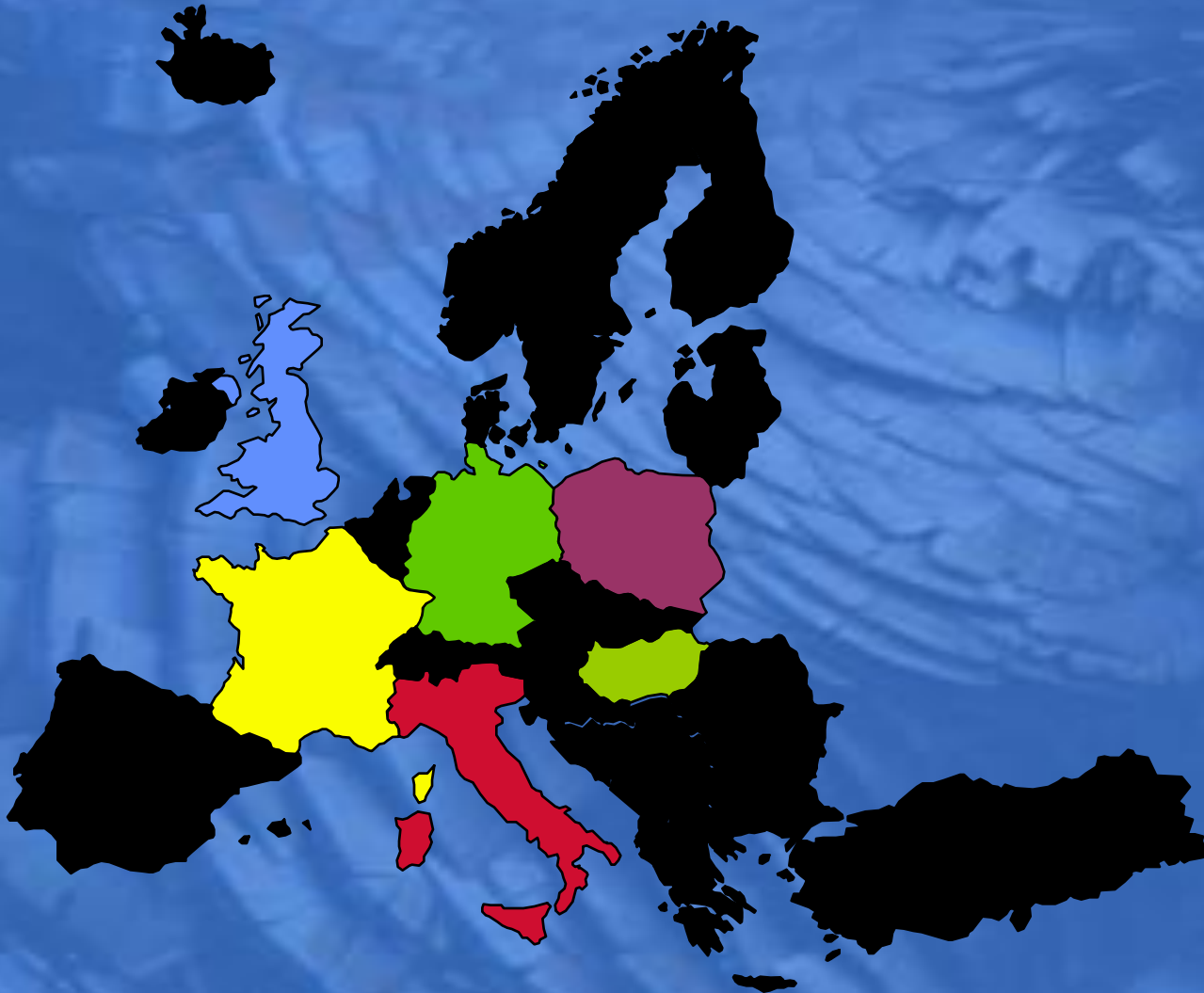
# Turkey breeders

- 3 - 3.5 million parent stock female breeders per annum
- Majority white plumage
- Specialist strains including different colour variants (bronze, black, auburn, white), less than 5% of EU production








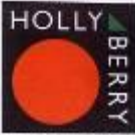

# Turkey breeders

Major Producers in the EU



# Turkey breeders

The EU turkey marked is segmented into three distinct categories

Strain type	Heavy	Heavy Medium	Specialist / Niche
Male live weight (kg) & age	20.5 - 21.5 kg 20-21 wks	14.0 – 15.5 kg 16-18 wks	12.0 – 14.0 kg 20-22 wks
Female live weight (kg) & age	10.5 – 11.0 kg 16 wks	6.5 – 8.0 kg 12-14 wks	5.5 – 6.0 kg 20-22 wks
Supply	 <i>Nicholas</i> B.U.T.  Hybrid	 <i>Nicholas</i> B.U.T.  Hybrid	 <b>HOCKENHULL TURKEYS</b>  <b>HOLLY BERRY HATCHERIES</b>  <i>Kelly Bronze</i> THE ORIGINAL AND STILL THE BEST

# Management goals

- Rearing
  - To prepare the male and female as best as possible for the laying period, i.e. ideal condition with respect to weight, plumage, conformation and health
- Laying
  - Maximise the number of fertile hatching eggs
  - Through controlled management, optimising the environment and maintaining a high health status

# Housing and management

Separate housing of males and females

# Rearing houses



# Laying houses



# Laying houses



# Housing

- No cages used
- During rearing period environmentally controlled houses used
- During laying period open-sided houses widely used (France, UK, Italy), environmentally controlled houses in some countries (Germany, Scandinavia)
- Outdoor systems

# Management Interventions

- Pecking can be an issue in both conventional and alternative/outdoor systems
  - Beak treatment (by Novatech) to control feather pecking
- Toe trimming rarely applied on breeders

# Stocking densities

- Rearing
  - Females: 3.0 – 3.5 /m<sup>2</sup>
  - Males: 2 /m<sup>2</sup> until selection at 14 - 16 weeks of age, 1 /m<sup>2</sup> thereafter
- Laying
  - Females: generally governed by nest box ratio, 5 – 6 birds / nest or for heavy strains 1.8 – 2.0 birds/m<sup>2</sup>
  - Males: 1 /m<sup>2</sup>

# Rearing schemes

- Rearing in one house upon transfer to laying farm at 28 - 30 weeks of age (most common for breeders)
- Brood-and-move systems; specialised farms to brood the birds to 5 - 6 wks of age, then transfer to a second farm for continued rearing

# Feed and feeding - males

- Weight controlled during rearing after selection, either
  - Qualitatively using low protein/high energy diet (10.1% protein, 2300 kcal)
  - Quantitatively, target growth 400-500 g/week
- Continued weight control of males in production (70% of ad lib after 30 wks)
- Round feeders with sufficient feeder space

# Feed and feeding - females

- Control of the growth curve in breeder hens is usually carried out by controlling the nutrient concentration of the diet i.e. Qualitative weight control
- Quantitative weight control is rarely used
- *Ad lib* water access for males and females

# Production period: males

- Selection at 16-18 weeks
  - Main criteria is health and fitness of the birds
- 10% males at day-old, at onset of lay 6-7% males  
-> 1:14-1:20 mating ratio
- Artificial insemination used (by specialist team)
- Separate housing from females with separate lighting and feeding programmes
- Light stimulated at rearing farm at 24 wks of age

# Production period: females

- Transfer to laying farm at 28-30 weeks
- Onset of lay 30-32 weeks
- Lay length 24-28 weeks
- Light stimulated at transfer

# Artificial insemination

- Training of males
- First insemination at 14-16 days after light stimulation, 85% of females showing squatting
- First week insemination 3 times
- Thereafter once a week
- Carried out by specialist team



# Production performance

Strain type	Heavy	Heavy Medium	Specialist / Niche
No. eggs at 24 wks production	104.3	123.1	110-123
Hatch of eggs set %	83.2	85.7	82-85
Day-old poults per hen housed	86.8	105.5	90-105

Source: Aviagen Turkeys 2007, 2008

# Welfare

- Welfare traits are key components of modern turkey breeding
  - Leg health (selection against leg defects, Tibial dyschondroplasia)
  - Foot pad health
  - Liveability
  - Robustness & health
- Turkey Breeders work with Industry to give best management advice to optimise bird health and welfare

## Challenges:

- Pecking issues can be encountered in flocks where no beak treatment (Novatech) is used – both in conventional and alternative systems
- Foot Pad Dermatitis in poor litter conditions

# Health

- Biosecurity
- Vaccination programmes



# Conclusions

- Majority of turkey breeders are heavy or heavy medium strains
- All genotypes can be used successfully in alternative systems
- High health status and fitness is important to ensure good production
- Careful management is applied to both males and females
- Mainly open sided buildings used for laying period
- Welfare is a key priority to Breeders and Industry

# Thank You

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*Nicholas*

