



S. Typhimurium and Antibiotic Resistance in Pigeons  
and the risks to the Poultry Sector  
by Dr William Ingham Farrow BVM&S MRCVS

**Newbridge Scientific**

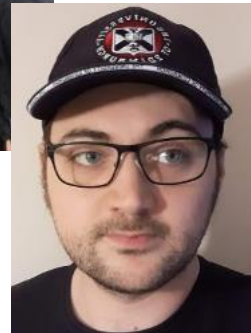


INSIGHT ■ INNOVATION ■ RESULTS

**vetPartners**

# Will Ingham Farrow

- Poultry vet since 2016
- 8 years of hat collecting
  - Lead Vet at PHS North West
    - Broilers, Layers, Turkeys
  - PHS Lead Vet for Gamebird
  - **PHS Lead Vet for Pigeons**
  - PHS Lead Vet for Backyard Hens





# Pigeons Travel



# Pigeon Medicine

- Population medicine for a small population
- Lofts of 20-500 birds
- No post mortems – small numbers, expensive birds, zoonotic disease

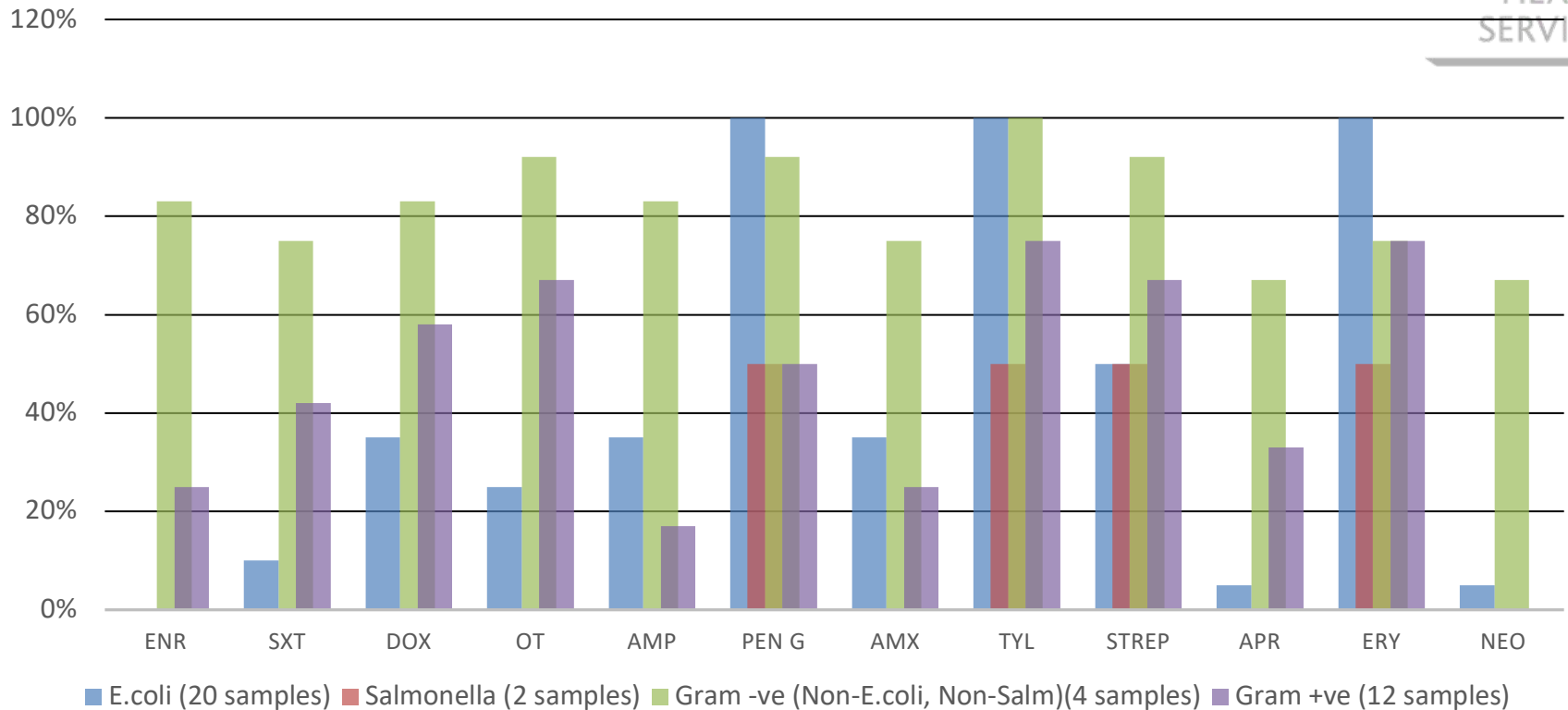


# Lab Testing

- Throat swab – Mycoplasma PCR
- Crop swab – Trichomonas
- Faeces – Salmonella, Chlamydia PCR, Viruses
- **Bacteriology**
- Sent out to owner for sampling



# Antibiotic Resistance Chart



# Salmonella typhimurium cases

- Specific Salmonella tests: 1 of 5 cases
- Bacteriology: 1 of 23 cases
- No other Salmonella strains identified
- One near York, one in Essex – no known connection

Antimicrobial	Result	Antimicrobial	Result
* Amikacin 30 µg	S	Ampicillin 10 µg	S
* Cefotaxime 30 µg	S	Apramycin 15 µg	S
* Ceftazidime 30 µg	S	Neomycin 10 µg	S
* Chloramphenicol 30 µg	S	Streptomycin 10 µg	S
* Ciprofloxacin 1 µg	S	Sulphonamides compound 300 µg	S
* Gentamicin 10 µg	S	Tetracycline 10 µg	S
* Nalidixic acid 30 µg	S	Trimethoprim / Sulphamethoxazole 25 µg	S
Amoxicillin / Clavulanic acid 30 µg	S		

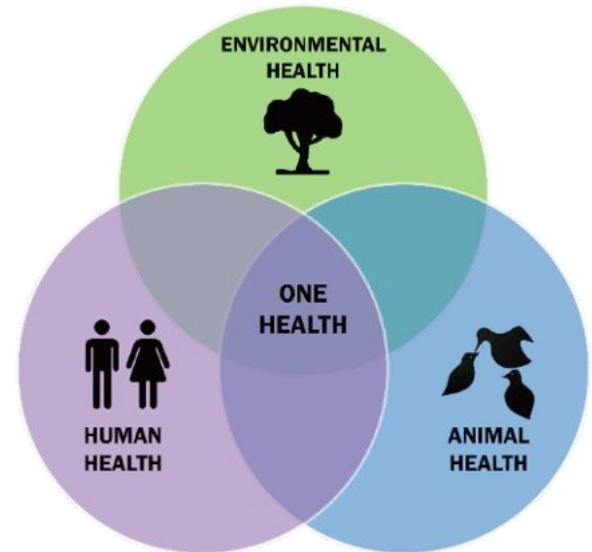
# Risks to Poultry

- Spread resistance genes
  - Direct to poultry
  - Indirect – via wild bird population and environment
- Biosecurity
  - Pest control
  - Feed clear up



# Risks to People

- UK Pigeon owners often older men
  - Immunosuppressed? Smokers? Hospital?
- Pigeon as a game meat
  - Withdrawal period?
- Locations – high human population density
  - Lofts in suburbs
  - “Wild” populations in cities



# Why? How?

- Lack of Education
  - Used as “Routine”, “supplements”, or “Performance enhancing” drugs
  - Poor storage, wrong doses, wrong treatment periods
- Supply
  - Small quantities needed
  - **Vets – UK and**
  - International pigeon magazines
  - Other pigeon fanciers
  - **Poultry Farmers?**



# What now?

- **Biosecurity and Hygiene**
- **Vets - provide the meds clients need**
  - Poultry, game, pigeons
- Provide educational material to clients



# Further work

- Continue to monitor
- Discuss with VMD, FSA, APHA
  - APHA monitoring Salmonella

Thank you to the team at

