

Ireland

2016 Eradication Programme for Bovine Tuberculosis

Standing Committee on the Food Chain and Animal Health (SCOFAH)



Department of
**Agriculture,
Food and the Marine**

An Roinn
**Talmhaíochta,
Bia agus Mara**

www.agriculture.gov.ie

Introduction

- The eradication programme for Bovine TB for 2015 was implemented effectively;
 - 98.47% herds tested (balance no stock when test scheduled or new herds not yet with stock)
- **Significant reduction in incidence of Bovine TB in 2015 compared with 2008:**
 - Number of reactors down from 29,901 in 2008 to 15,317 in 2015 i.e. (**49% reduction**)
 - 5.88% - 3.37% reduction in Herd Incidence (**43% reduction**)
 - 3.25 - 1.82 reduction in APT (**44% reduction**)

Ireland

- Demographics

- **December 2015**
 - **holdings with bovines** (115,091 = 97.95% OTF and 96% herds OTF in excess of 1 year)
 - **6.3m animal population December (6.9m June)** Population peaks post Spring calving prior to Autumn slaughter
 - **approx. 2.5 million cows (50% dairy cows)**
 - **Approx. 83,000 breeding herds (20% dairy herds)**
 - **Average herd size: 55**

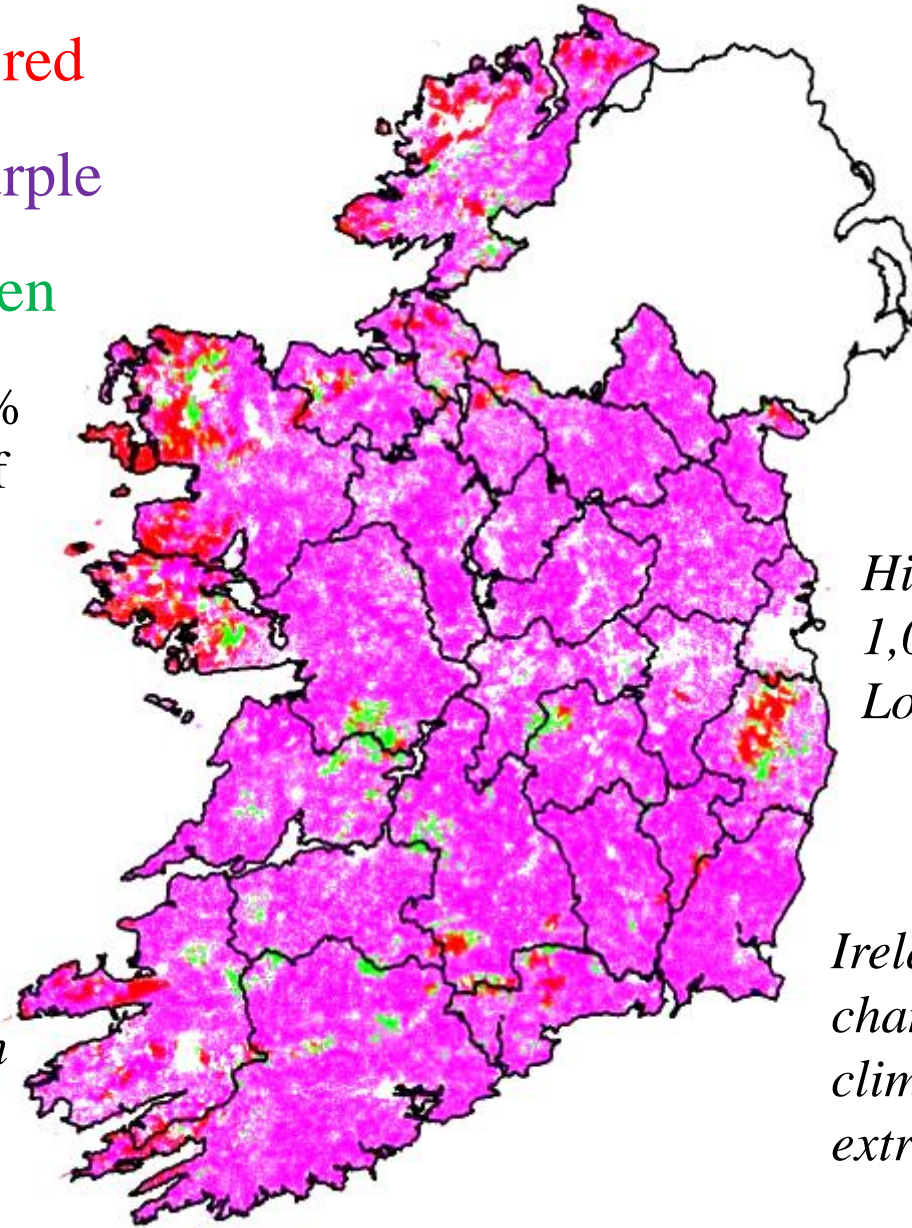
Mountains are red

Farmland is purple

Forests are green

Approximately 91%
(3.82 million ha) of
agricultural area is
devoted to grass
(silage, hay and
pasture, rough
grazing)

*Pastureland
dominates with
hedgerows between
fields*



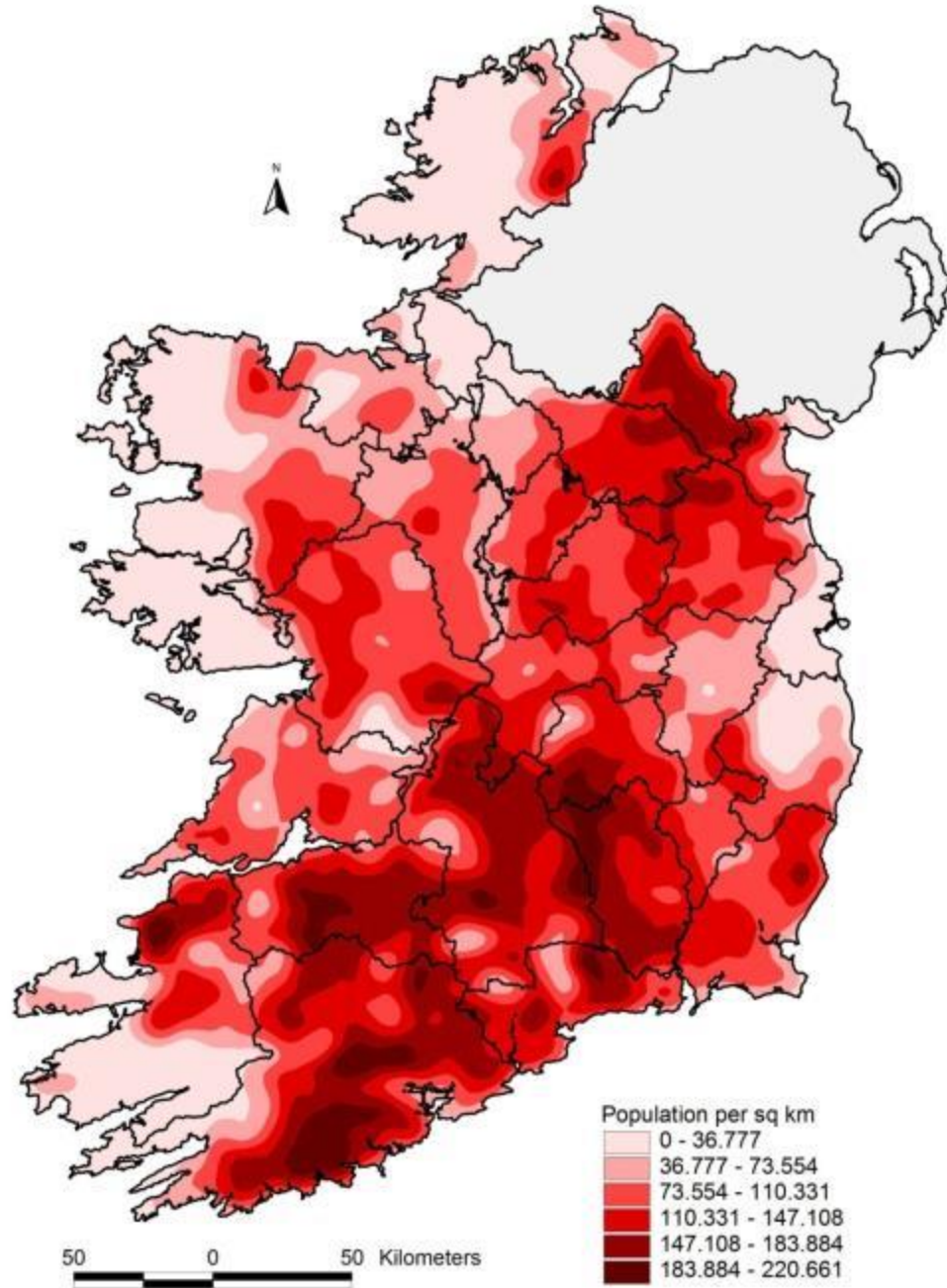
*Highest mountain is
1,038 m
Longest river 386 km*

*Ireland has a mild but
changeable oceanic
climate with few
extremes*

cattle density map 2015



cattle and badgers share and feed on the same grassland areas



2015 TB

Programme – main measures

- Disease detection:
 - Annual herd screening test – Single Intra-dermal Comparative Tuberculin Test (SICTT)
 - Routine veterinary *post-mortem* slaughterhouse surveillance
 - Additional targeted risk-based testing on an epidemiological basis e.g. check tests on herds contiguous to infective breakdown, TB history etc.

2015 TB Programme – contd.

- Post Disease detection
 - Holding and movement restrictions (OTF status suspended/withdrawn as per Directive) on suspect & positive animals/herds
 - Gamma-interferon assay in infected/problem herds
 - Epidemiological investigations to include field visits, as necessary, on infective breakdowns
 - Wildlife control in infected areas (targeted badger removal under license where badgers implicated)
 - Depopulation (stamping out) of heavily infected herds
 - Farm hygiene – disinfection of premises
 - Compensation for removal of reactors

2015 TB Programme – main measures contd.

- Status restored after clear tests at 60 days & 4 months
- Herd check tests at 6, 12 & 18 months
- Standard inconclusive reactors (in otherwise clear herds) confined to herd of disclosure for life even after passing retest.
- Badger population control measures maintained pending availability of effective and licensed TB-vaccine

2015 TB Programme – contd.

- *QC of SICTT*
 - supervision and monitoring of performance of testing veterinarian
 - tuberculin assay on naturally infected bovines
- *Computerised database AHCS & AIM (linked)*
 - links disease test recording and identification & movement databases (ensures testing of all animals)
 - Electronic communication with veterinarians
 - Animal movements control at marts, assembly centres, between farms and at slaughter
 - Display of animal test data on AHCS at marts and assembly centers

Research

- CVERA – Centre for Veterinary Epidemiology and Risk Analysis – staff from Department of Agriculture and Food, Veterinary Faculty of University College Dublin and Teagasc (Irish Agriculture and Food Development Authority). Covers major areas of interest.
- Wildlife Unit – undertakes badger population controls and investigates the role of the badger in the spread of bovine tuberculosis
- Badger Vaccine Development Project in collaboration with UK and France
- Diagnostics – UCD (*interferon- γ Assay*), - CVRL (*histology, culture, strain typing, ELISA*)

Interferon- γ assay in infected/problem herds

GIF 2015	
Total Samples submitted	32,226
Total Positive	9,761

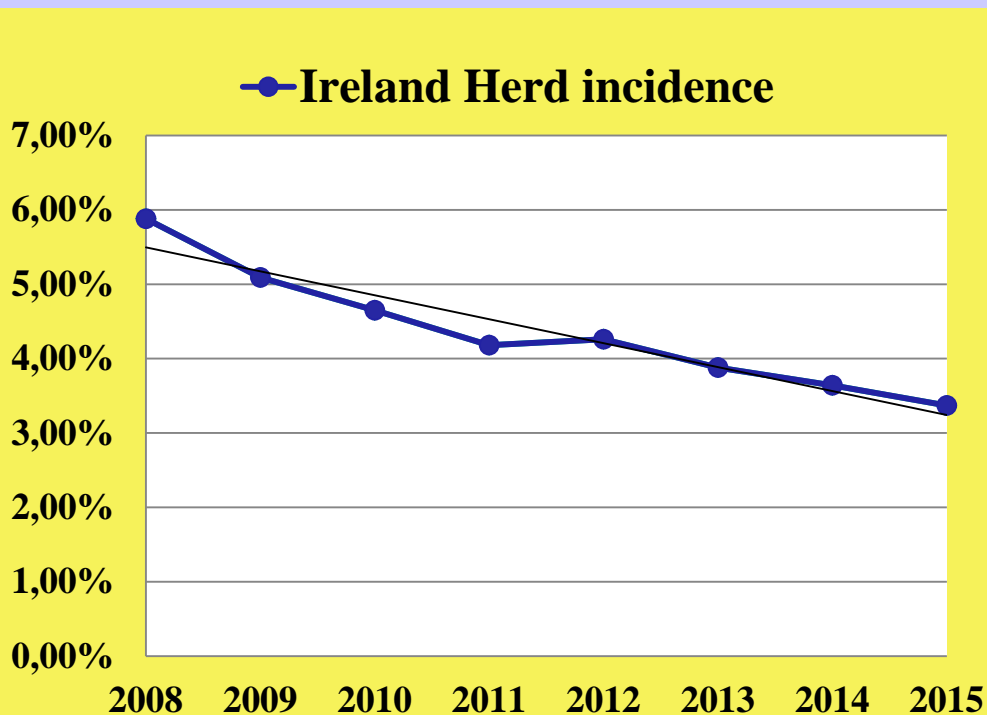
GIF 2014	
Total Samples submitted	19,405
Total Positive	10,259

- 40,000 samples targeted in 2015 (earlier & more)

Main TB trends 2008- 2015

Herd Incidence

➤ 5.88% in 2008 - 3.37% in 2015
(43% reduction)



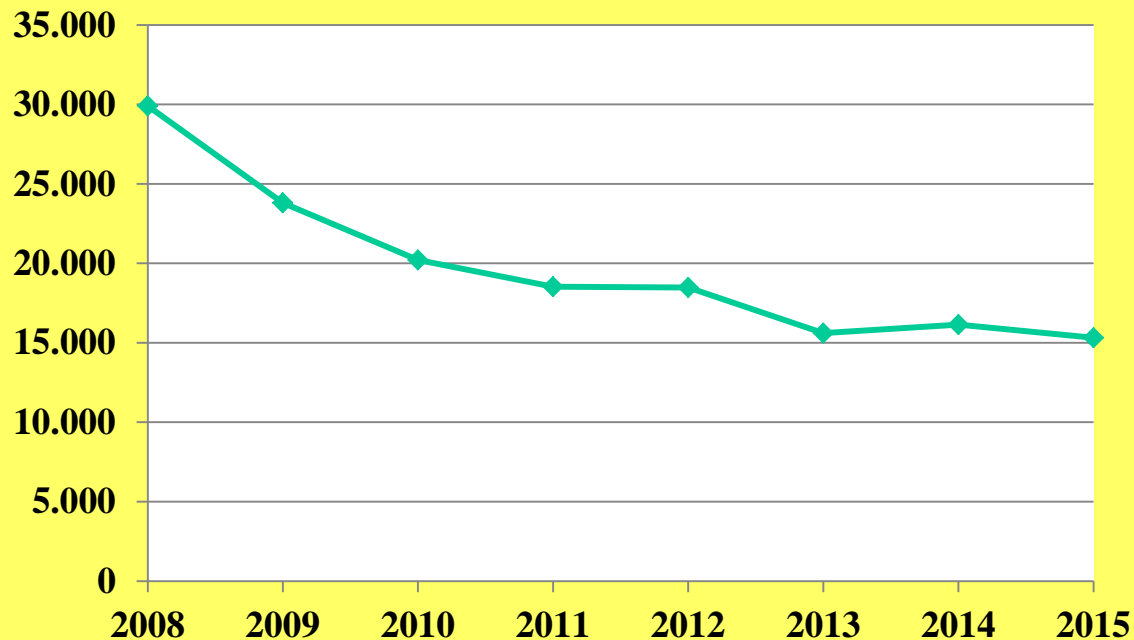
Main TB trends 2008 - 2015

➤ Number animals positive

29,901 in 2008

15,317 in 2015 (49% reduction)

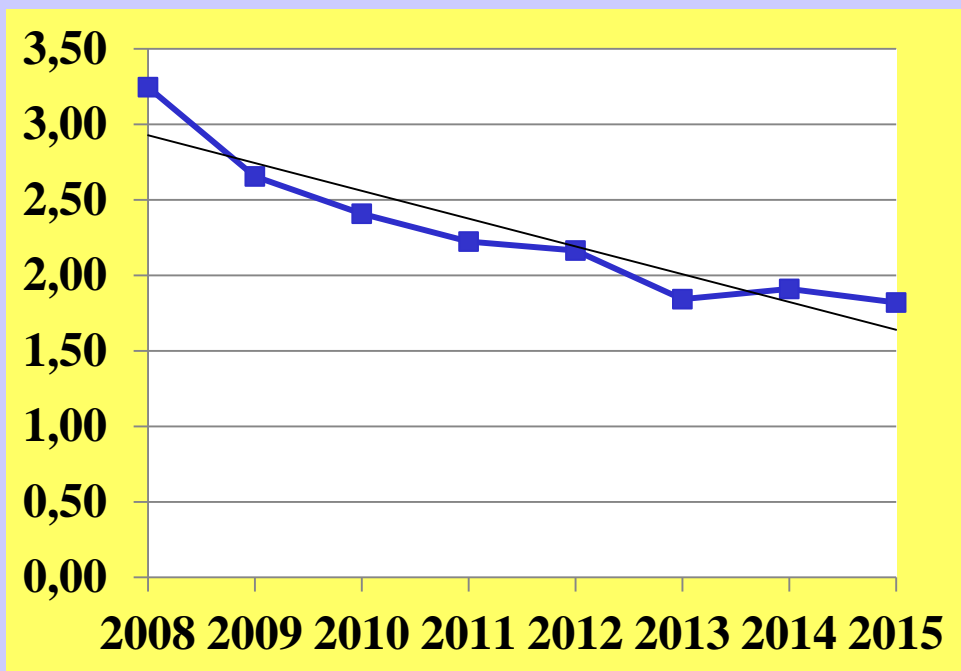
Positive animals



Main TB trends 2008- 2015

APT – Reactors per 1,000 tested.

➤ 3.25 in 2008 - 1.82 in 2015
(44% reduction)



Ongoing

- Continuous monitor of programme performance
- Integration of data/research evaluations together with routine system and performance reviews leading to
 - Constant update and enhancement of herd and animal level controls in an integrated and targeted manner

Ongoing

- Evaluation of
 - contribution of shortfall in test specificity (<100%) to reduction in positive predictive value of test as true disease levels decline
 - Contribution of ‘false positives’ to apparent herd incidence (based solely on SICTT test positives) and impact of these on ability to achieve a pre-specified target reduction as set by Commission

The Future

- Badger removal programme (despite limitations applicable to a protected species) as addition to normal measures appears to be paying dividends.
- Continue to implement programme on similar lines including badger removal to control badger-population density
- Research into Badger vaccination is on-going (in collaboration with UK) but definitive conclusions as to efficacy in wild population are not yet available.
- Sustained progress towards ultimate eradication of bovine TB is dependent on effective and sustained control of disease in the sympatric infected wildlife (badger) and cattle populations

Department of Agriculture, Food and the Marine

Thank you for your attention



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