Department
for Environment
Food & Rural Affairs

helpline@defra.gsi.gov.uk
www.gov.uk/defra

[redacted]

Our ref: RFI 6488
Date: 01 May 2014

Dear [redacted]

REQUEST FOR INFORMATION: Badger Population Size and bTB Incidence

Thank you for your request for information about the size of the English badger population, which we received on 7 April. We have handled your request under the Environmental Information Regulations 2004 (EIRs).

The EIRs apply to requests for environmental information, which is a broad category of information defined in regulation 2 of the EIRs. Public authorities are required to handle requests for environmental information under the EIRs. They give similar access rights to the Freedom of Information Act 2000 (FOIA).

Your questions and the responses are below.

1. **Please tell me the current population estimates for badgers in England.**

And

2. **The degree of confidence with which those estimates have been calculated.**

There are no current estimates of numbers of badgers in England and Wales. A survey based on searching for badger setts was recently completed which estimated the number of badger social (family) groups in England. The number of social groups was estimated as 64,000 (95% confidence intervals ranging between 59,000 and 69,000). A further study is due to be completed soon, which aims to estimate how social group size varies across the landscapes of England and Wales. The aim is to combine the results of the sett survey with this latter group size survey to estimate the number of badgers in England and Wales. It is hoped that this will be reported in a scientific publication before the end of 2014.

3. **Please tell me the number of badgers <u>known</u> to be infected with bovine TB at the present time i.e. in 2014.**

The best and most recent data on the prevalence of TB in badgers comes from the areas where badgers were culled in the Randomised Badger Culling Trial (RBCT) (10 proactive culling areas and 9 reactive culling areas), and an survey of Road Traffic Accident (RTA) badgers carried out from 2002-2005, while the RBCT was ongoing. This latter survey was carried out in 7 counties, chosen to represent historically high and low (but increasing) TB risk to cattle. Overall prevalence in proactive culling areas was 15% and in the RTA badgers was 16.6%. Prevalence varied between areas, and was carried out using post-mortem (PM) investigation of culled badgers using a standard PM protocol. TB infection is more readily revealed with increasing detail of PM investigation. Hence it is accepted that estimates of prevalence in the 10 proactively culled RBCT areas are underestimates of true TB prevalence.

4. **In the same interview, the Secretary of State referred to the badger cull in the Republic of Ireland as evidence of the success of the policy in reducing the incidence of bTB in cattle.**

   Please can you provide me with the evidence that the Secretary of State has relied on to make that statement, i.e. evidence that proves a causal link between the culling policy and any reduction in bTB in cattle?

The link between TB in cattle and badgers in Ireland and the effect of culling badgers on bovine TB in Ireland has been demonstrated and analysed in a variety of scientific papers, including those listed below:

Eves, J.A., 1999. Impact of badger removal on bovine tuberculosis in east County Offaly. *Ir. Vet. J.* 52, 199–203.

Martin, S.W., Eves, J.A., Dolan, L.A., Hammond, R.F., Griffin, J.M., Collins, J.D., Shoukri, M.M., 1997. The association between the bovine tuberculosis status of herds in the East Offaly Project Area, and the distance to badger setts, 1988-1993. *Preventive Veterinary Medicine* 31, 113-125.

Griffin, J.M., Williams, D.H., Kelly, G.E., Clegg, T.A., O'Boyle, I., Collins, J.D., More, S.J. 2005. The impact of badger removal on the control of tuberculosis in cattle herds in Ireland. *Preventive Veterinary Medicine* 67, 237-266.

Griffin, J.M., More, S.J., Clegg, T.A., Collins, J.D., O'Boyle, I., Williams, D.H., Kelly, G.E., Costello, E., Sleeman, D.P., O'Shea, F., Duggan, M., Murphy, J., Lavin, D.P.T., 2005. Tuberculosis in cattle: the results of the four-area project. (2005) *Irish Veterinary Journal* (11) 629-636.

Olea-Popelka, F.J., Fitzgerald, P., White, P., McGrath, G., Collins, J.D., O'Keeffe, J., Kelton, D.F., Berke, O., More, S.J., Martin, S.W., 2009. Targeted badger removal and the

subsequent risk of bovine tuberculosis in cattle herds in county Laois, Ireland. *Preventive Veterinary Medicine* 88, 178-184.

Kelly, G. E., Condon, J., More, S. J., Dolan, L., Higgins, I., Eves J. 2008, A long-term observational study of the impact of badger removal on herd restrictions due to bovine TB in the Irish midlands during 1989–2004. *Epidemiol. Infect.* 136, 1362–1373.

Costello, E., O'Grady, D., Flynn O., O'Brien, R., Rogers, M., Quigley, F., Egan, J., Griffin, J. 1999. Study of restriction fragment length polymorphism analysis and spoligotyping for epidemiological investigation of Mycobacterium bovis infection. *Journal of Clinical Microbiology, vol. 37*, no. 10, pp. 3217–3222.

Olea-Popelka, F. J., Flynn, O., Costello E., McGrath, G., Collins, J.D., O'keeffe, J., Kelton, D.F., Berke, O., Martin, S.W. 2005. Spatial relationship between Mycobacterium bovis strains in cattle and badgers in four areas in Ireland," *Preventive Veterinary Medicine, vol. 71*, no. 1-2, pp. 57–70.

Murphy, C., Costello, E., Murphy, D., Corner, L.A., Gormley, E. 2012. DNA typing of Mycobacterium bovis isolates from badgers (Meles meles) culled from areas in Ireland with different Levels of Tuberculosis prevalence. *Veterinary Medicine International Volume 2012*, Article ID 742478, 6 pages. doi:10.1155/2012/742478

Murphy, D., Gormley, E., Collins D. M., McGrath, G., Sovsic, E., Costello, E., Corner, L.A. 2011. Tuberculosis in cattle herds are sentinels for Mycobacterium bovis infection in European badgers (Meles meles): the Irish greenfield study. *Veterinary Microbiology, vol. 151*, no. 1-2, pp. 120–125.

Defra takes the view that given:

1) several peer reviewed scientific studies have shown the effectiveness of badger culling in reducing the incidence of TB in cattle several different scientific studies in different parts of Ireland,

2) the widespread application of badger culling in Ireland shortly after the completion of those scientific field studies in the early 2000s,

3) the observed subsequent decline in the incidence (and other epidemiological indicators) of the disease in cattle,

4) the logical impossibility of simultaneously applying a disease control measure to an entire country and then formally proving beyond doubt what would have happened if you had not applied that intervention,

The Irish Government's assertion that:

"*Notwithstanding the difficulty in attributing trends to a single factor and the cyclical nature of the disease, the Department is satisfied that the culling of infected badgers, which is underpinned by research studies and sound science, has led to a significant reduction in the incidence of TB in cattle over the past decade.*"

is, in our view, a reasonable conclusion supported by epidemiological evidence.

Any further queries around bTB in Ireland and the Irish Government's policy should be addressed to the Irish Department of Agriculture, Food and the Marine, which can be contacted at info@agriculture.gov.ie.

In keeping with the spirit and effect of the EIRs, and in keeping with the government's Transparency Agenda, all information is assumed to be releasable to the public unless exempt. Therefore, the information released to you will now be published on www.gov.uk together with any related information that will provide a key to its wider context. Please note that this will not include your personal data.

I have attached an annex giving contact details should you be unhappy with the service you have received.

If you have any queries about this letter, please contact me.

Yours sincerely,

Defra TB Programme

Email: ccu.correspondence@defra.gsi.gov.uk

Annex

Complaints

If you are unhappy with the service you have received in relation to your request you may make a complaint or appeal against our decision under section 17(7) of the FOIA or under regulation 18 of the EIRs, as applicable, within 40 working days of the date of this letter. Please write to Mike Kaye, Head of Information Standards, Area 4D, Nobel House, 17 Smith Square, London, SW1P 3JR (email: requestforinfo@defra.gsi.gov.uk) and he will arrange for an internal review of your case. Details of Defra's complaints procedure are on our website.

If you are not content with the outcome of the internal review, section 50 of the FOIA and regulation 18 of the EIRs gives you the right to apply directly to the Information Commissioner for a decision. Please note that generally the Information Commissioner cannot make a decision unless you have first exhausted Defra's own complaints procedure. The Information Commissioner can be contacted at:

Information Commissioner's Office
Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF