

VIDA 2008

INTRODUCTION

Source of Data

The Veterinary Investigation Diagnosis Analysis database - VIDA - contains a record of every submission made to Veterinary Laboratories Agency (VLA) Regional Laboratories (RLs) and Scottish Agricultural College (SAC) Disease Surveillance Centres (DSCs) in Great Britain and has been operating since 1975. In England and Wales there are fifteen such centres that form part of the Surveillance Division of the Veterinary Laboratories Agency. In Scotland there are eight centres, administered by the Scottish Agricultural College. All twenty-three centres contributed information for inclusion in 2008. The total number of submissions received in 2008 was 84,081, of which 53,803 were received for diagnostic purposes. This includes the total number of diagnoses listed in the tables plus submissions for which no diagnosis code was recorded. It should be noted that a submission could have more than one diagnosis. As well as the production of this booklet, VIDA is also used for ad hoc investigations, and in 2008 CERA at the VLA Weybridge received 59 such requests for information, involving 1681 individual data retrievals.

Bias in VIDA

Total numbers of submissions recorded by VIDA represent only the material submitted for investigation to VLA Regional Laboratories and SAC Disease Surveillance Centres. This bias is influenced by many factors including, for example, the particular clinical presentation of a suspected disease, the level of awareness of a disease and its perceived importance, the value of the animal or animals affected, and the general economic climate. Particular diagnoses may be affected by improved scientific methods, and knowledge of this may also affect

rates of submission; these factors will usually vary differentially with time. This bias should be considered when interpreting both individual figures, and apparent trends, from VIDA data.

VIDA diagnosis totals are intended to represent only cases of clinical disease, hence the necessity for the category “DIAGNOSIS NOT APPLICABLE” (code 991) and “SCREENING – No clinical problem” (code 980). Included under this umbrella are the results of, for example, samples sent to VLA Regional Laboratories for non-diagnostic testing, plus results of tests performed by one VLA Regional Laboratory on behalf of another (usually because of specialist facilities), when the diagnosis will be recorded by the VLA Regional Laboratory to which the sample was originally submitted. When examining annual diagnosis figures for a particular disease, it is therefore advisable to relate them not just to the total diagnoses in that year and class, but also to exclude submissions where the diagnosis is 'not applicable' and those for “screening – no clinical problem” before comparing one year with another. Total submissions excluding 'not applicable' and 'screening' are referred to as 'diagnostic submissions' (see Table 1).

FOOT AND MOUTH DISEASE OUTBREAK 2001

On 20th February 2001, Foot and Mouth Disease (FMD) caused by the O1 Pan Asia strain of virus was confirmed in Great Britain. A Controlled Area Order was imposed across the whole of the country on 23rd February 2001, which prohibited the movement of livestock except under official control and banned livestock markets. During the subsequent epidemic 2,026 outbreaks were confirmed. The final confirmed outbreak was on 30th September 2001. Further information about the 2001 FMD epidemic can be found on the DEFRA website <http://defraweb/animalh/diseases/fmd/2001/index.htm>.

The FMD epidemic impacted upon surveillance in two distinct ways. Firstly, the outbreak caused significant disruption to normal farming practice with unpredictable consequences for the incidence of infection. Secondly, surveillance activities were constrained. VLA laboratories were unable to accept samples from infected areas and cattle, sheep or pig carcasses from any areas between late February 2001 and October 2001. Field visits were halted from late February 2001 but essential visits were later permitted providing strict Agency procedures were followed.

Cattle submissions to the VLA Regional Laboratories (RLs) were reduced by 36.9% in comparison to 2000 and the eight-month prohibition of any carcass movement for diagnostic purposes resulted in a 77.4% reduction in cattle carcass diagnostic submissions. Sheep submissions to the laboratories were severely restricted from the end of February for the remainder of the year, and in total there was a 64% decline in England and Wales. However, scrutiny of the January and February data shows that early year data were comparable with the previous year. Diagnostic submissions, particularly carcass submissions, were also significantly reduced in 2001 for pigs and goats.

TRENDS IN 2008: LIVESTOCK POPULATIONS AND WEATHER CONDITIONS

Changes in both the total number of animals in each category of livestock and the climatic conditions over the year may affect the overall disease situation, and thus the totals recorded in this publication. A summary of both is therefore given below.

The 2008 livestock data is taken from the June Agricultural Census figures (MAFF statistics 2008) for Great Britain. In editions of this publication prior to 1997 the livestock figures published were taken from the December agricultural census and covered the United Kingdom. Because of this difference, the livestock data presented in this and future editions of the VIDA booklet cannot be directly compared to that in editions of the book before 1997.

The information on weather conditions has been obtained from Royal Meteorological Society monthly reports for 2008.

Livestock population

Cattle

The total cattle population, including calves, in Great Britain fell by 2% compared with 2007 and now stands at just under 8.5 million animals.

Dairy Cattle

The number of animals in the total dairy herd is just under 1.7 million, a fall of 2.9% compared with 2007 when there were just over 1.7 million animals.

Beef Cattle

The total beef breeding herd also fell in 2008 compared with 2007 (by 1.5%) and now stands as just under 1.5 million animals.

Sheep

There was a decrease of 2.4% in the total sheep population, including lambs, compared with 2007 and there are now just over 31 million animals. The decrease in the adult sheep population compared with 2007 was slightly larger (3.2%) and now stands at just over 15.5 million animals.

Goats

The total goat population now stands at 91,480 compared with 92950 in 2007, a fall of 1.6%.

Pigs

There was a decrease of 2.6% in the total population, which now stands at just over 4.3 million animals.

Poultry

The number of laying fowls producing eggs for human consumption fell by 5.6% compared with 2007 and there are now just over 23.5 million birds. There was a small increase (1.5%) in the number of broilers and other table fowl compared with 2007 to just over 98.3 million birds.

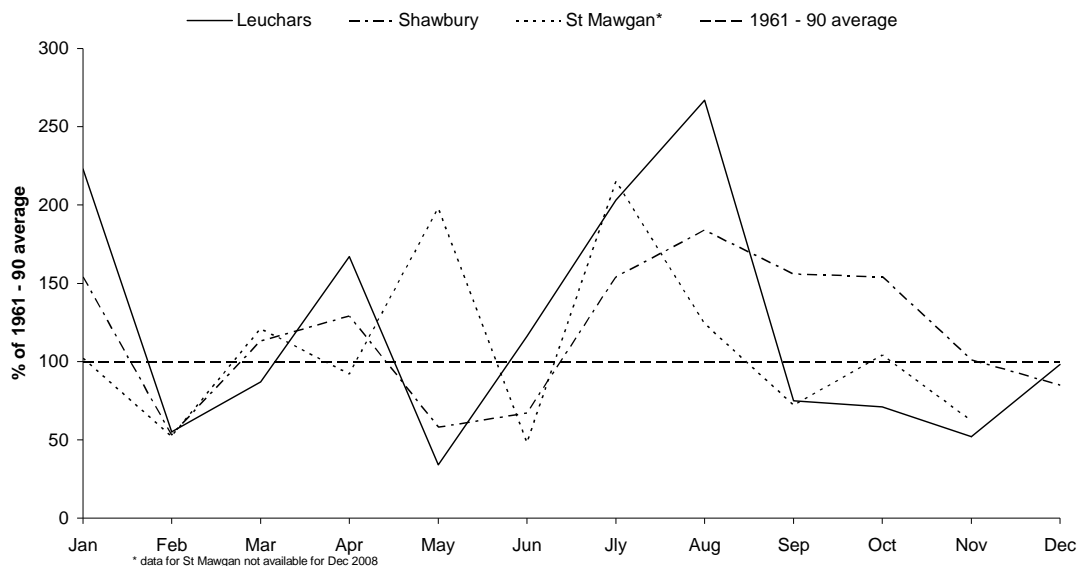
Meteorological data

For the location of the weather stations referred to in Figures 1 and 2 please see the map inside the back cover.

January 2008 was the wettest January since 1995 and was also exceptionally mild in the Midlands and the South-East of England. Northern regions were however often cold and there were many substantial falls of snow during the first two weeks of the month.

Rainfall during February was exceeded the normal in western Scotland but was below normal almost everywhere else. The mean maximum temperature was above average for the month, and the large amount of sunshine meant that it was the sunniest February on record.

Fig 1: Rainfall as a percentage of the 1961 - 90 average at three places in Britain in 2008



February's exceptional sunshine did not continue into March, although there were slightly above average levels in most areas except south-east England. Throughout March there it was unsettled and there was frequent rain. It was also rather cold and the Easter holiday (21st – 24th)

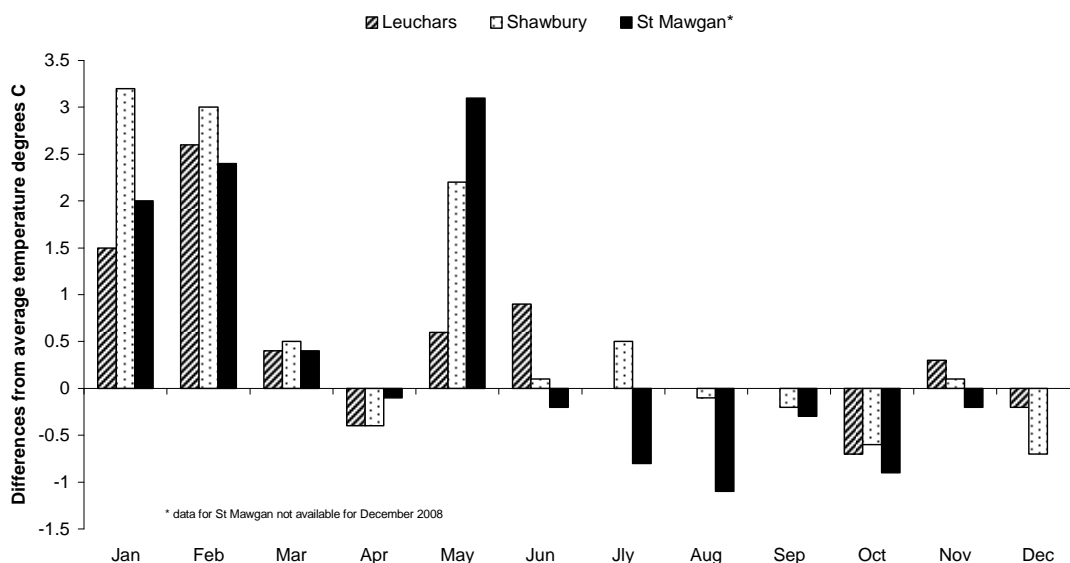
was one of the coldest on record with sharp frosts and widespread, although light, snow and hail. April too was cold and unsettled, particularly during the middle two weeks of the month. The rain, although frequent, was showery and overall it was a fairly dry month.

May was very warm over much of the country. Northern England and Scotland were also exceptionally dry, but southern districts were wetter than average due to heavy rain during the last week of the month. The warm conditions continued into early June before it became cooler. Although temperatures were close to average in all areas, it was still the coolest June since 1999. Rainfall was well above normal in much of Scotland and in north-west England and North Wales, but below normal in southern England, South Wales and some areas of the Midlands.

The first three weeks of July were cool, but the mean temperature for the month was close to average due to the last week being very warm. During this time it was also very humid and there were scattered showers and thunderstorms. Rainfall was above the long-term average in all areas except East Anglia, although it was not as wet as July 2007.

August was a dull month, the dullest since 1912. Daytime temperatures were consistently below normal, but overnight temperatures were substantially above normal. It was also a very wet month, averaged nationally the wettest since 2004, and in some areas new rainfall records were set.

Fig 2: Differences in temperature from the 1961 - 90 average at three places in Britain in 2008



There was widespread heavy rain during the first week of September with many places exceeding their normal rainfall for the month during this time. Thereafter it became mainly dry with less sunshine than usual for September and cooler than usual temperatures. In contrast, October was sunny, especially in the eastern and central parts of England and Scotland. Towards the end of the month there wind changed to come from a northerly direction and there was an exceptional wintery snap with snow over both the Scottish hills, the Midlands and southern England.

Conditions were changeable during November with alternating cold and mild spells. Rainfall was generally below normal despite the second week of the month being very wet, and in some places it was also very dull with little sunshine. December in contrast was generally dry and sunny; nationally it was the driest and sunniest since 2001. The first week and the last week were both very cold, nationally the coldest since 2001, with persistent freezing fog in several areas.

DISEASE TRENDS IN 2008

Veterinary comment on trends in VIDA diagnostic data can be found in the reports of the VLA Species Expert Groups:

(<http://vla43/index/corp-science-programmes/prog-end-intro/prog-end-species-groups.htm>). There are reports for cattle, small ruminants (sheep & goats), pigs, birds (poultry & game birds), miscellaneous & exotic farmed species and wildlife. The Species Expert Groups are made up of specialist VLA vets and scientists who have expertise in a particular species together with colleagues from the Scottish Agricultural Colleges Veterinary Science Division and veterinary surgeons from the specialist BVA Divisions. These Groups take the lead in the investigation of new & emerging diseases identified by VLA scanning surveillance activities.

CATTLE

Fig 4: Total cattle submissions in GB 2001 - 2008

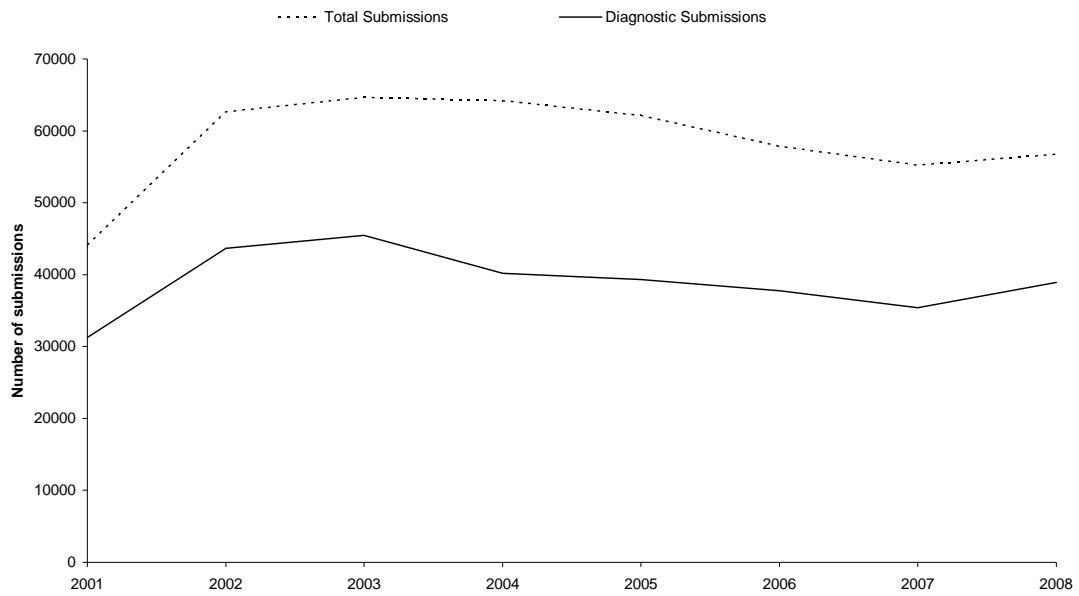


Fig 5: Diagnosis of bovine fetopathy in 2008 (excluding "fetopathy diagnosis not reached") as a percentage of all bovine fetopathy diagnoses (n=1198)

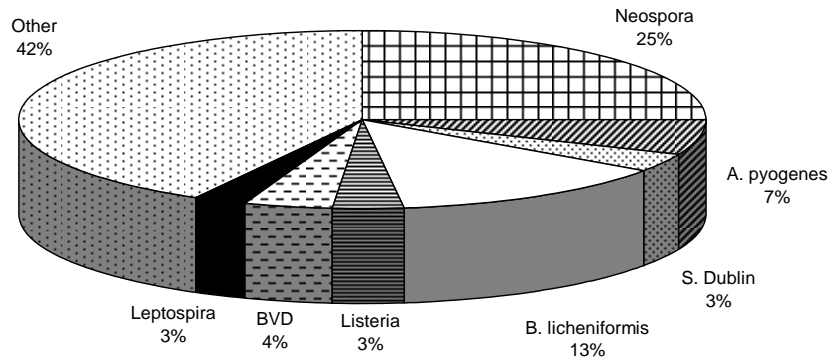


Fig 6: All incidents of salmonellosis other than fetopathy in cattle 2001 - 2008

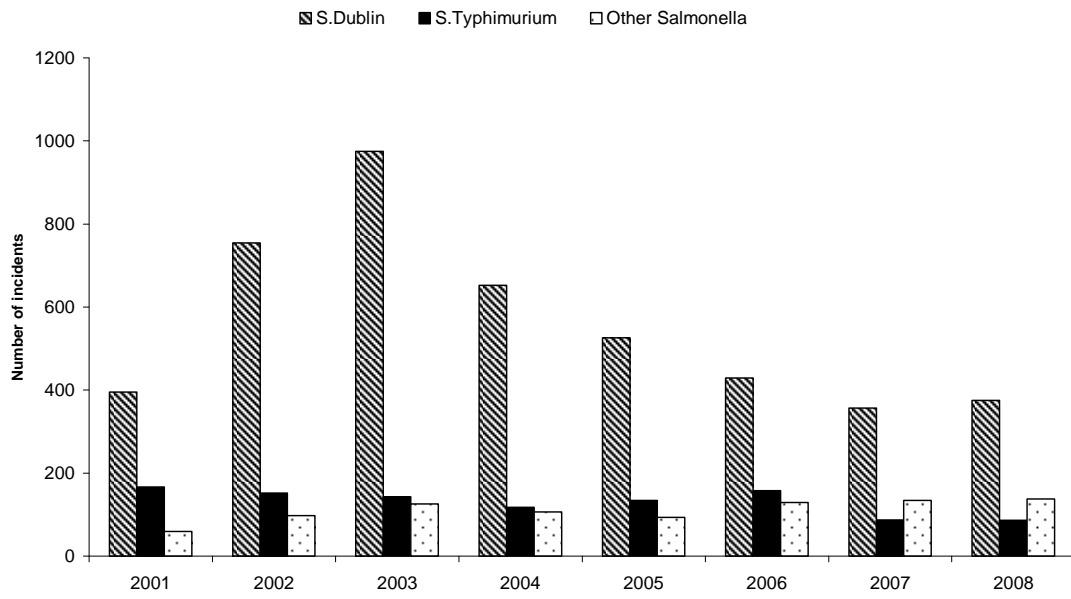


Fig 7: All incidents of fasciolosis in cattle in 2001 - 2008

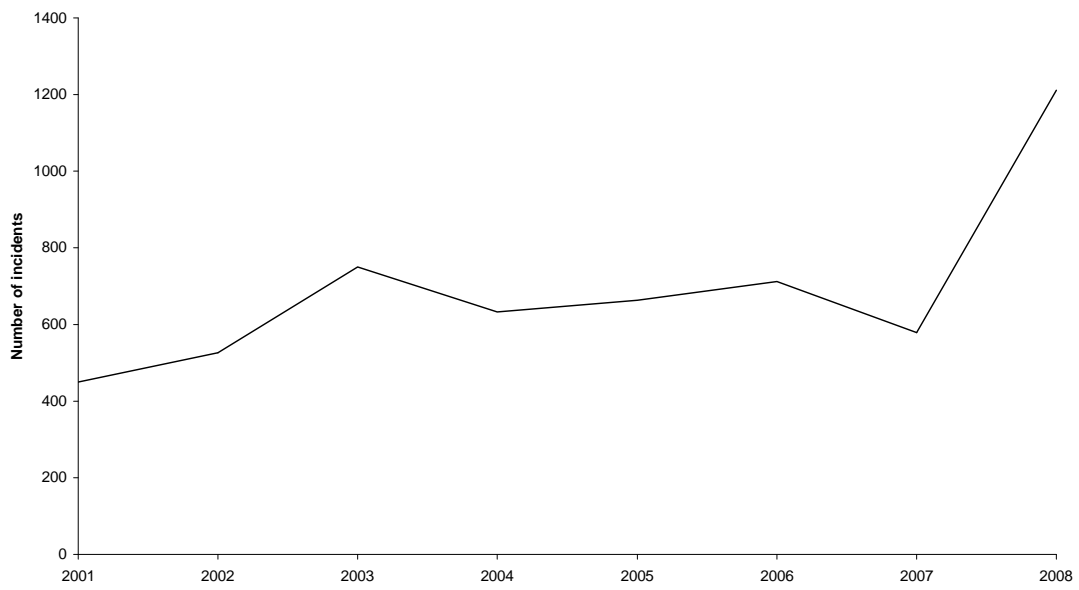


Fig 8: All incidents of BVD in cattle in 2001 - 2008

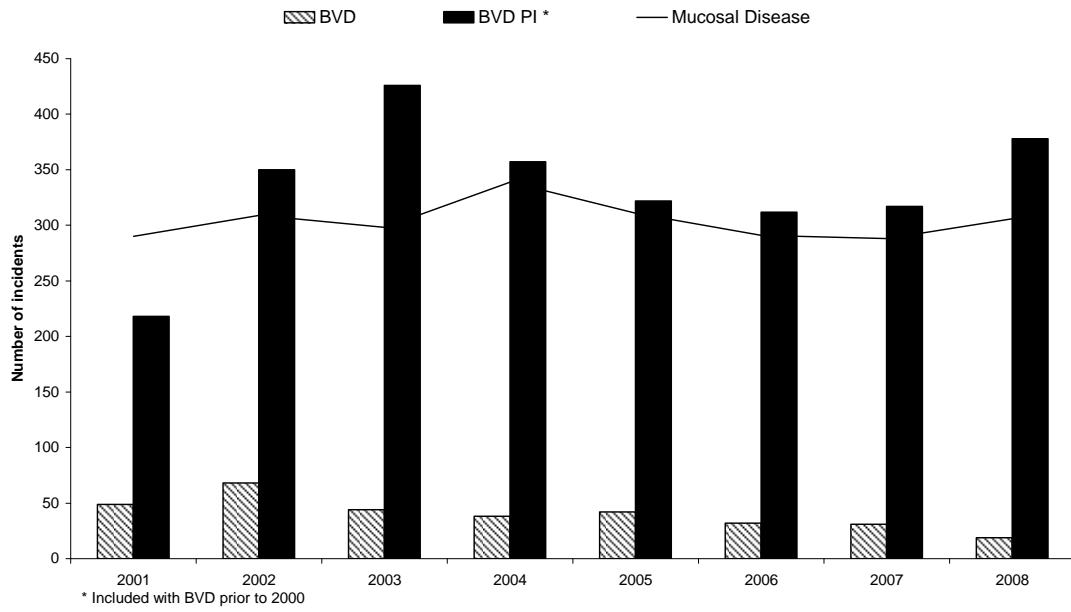


Fig 9: All incidents of Johne's Disease in cattle in GB 2001- 2008

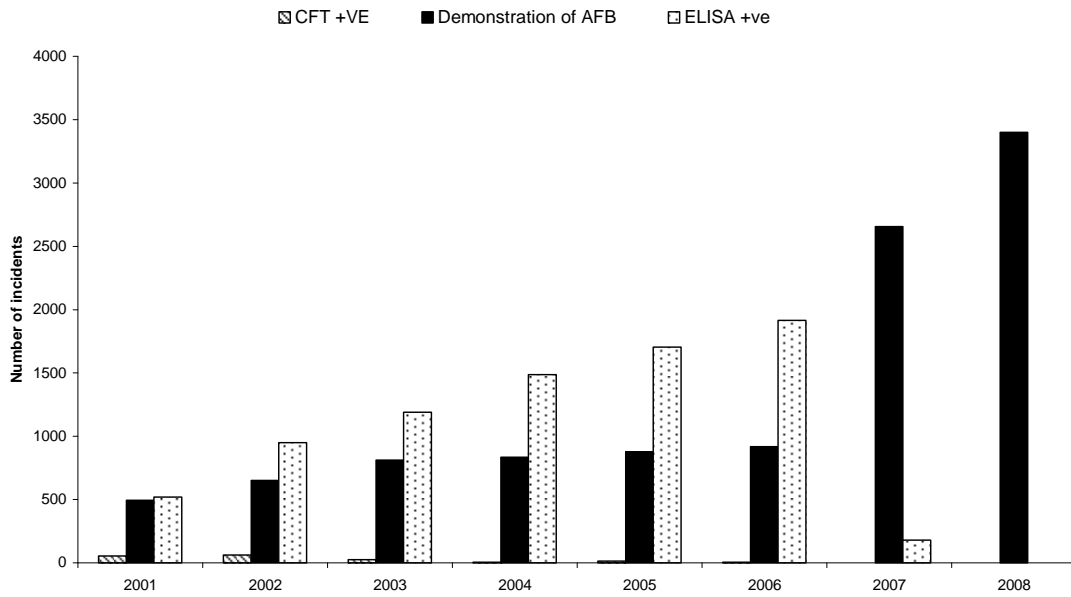


Fig 10: All incidents of mastitis in cattle in Great Britain as a percentage of total mastitis diagnoses in 2008 (n=3766)

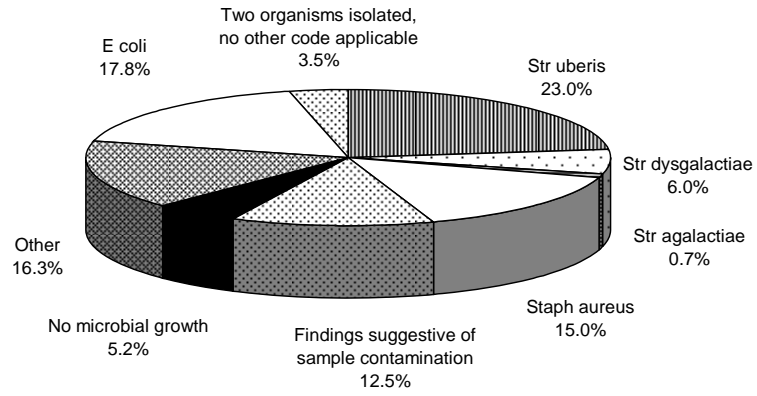
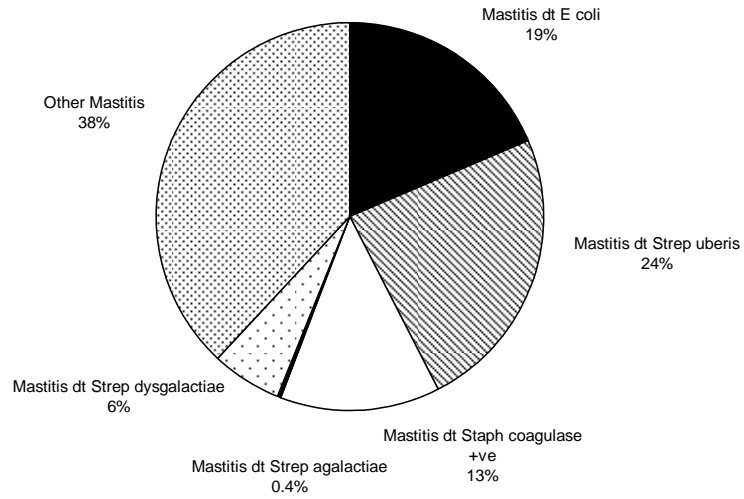
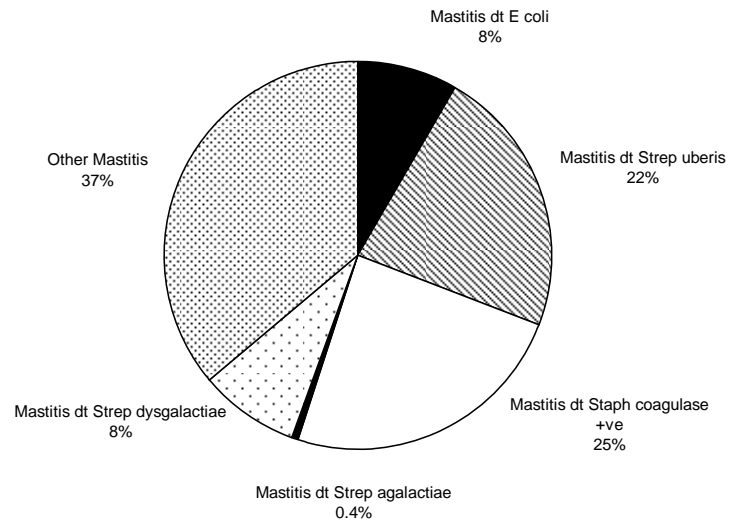


Fig 11: Clinical mastitis in cattle by pathogen in 2008 (n = 2264) (VLA diagnoses only)



**Fig 12: Sub-clinical mastitis in cattle by pathogen in 2008 (n =498)
(VLA diagnoses only)**



SMALL RUMINANTS

Fig 13: VIDA sheep diagnostic submissions vs total GB sheep population 2001 - 2008

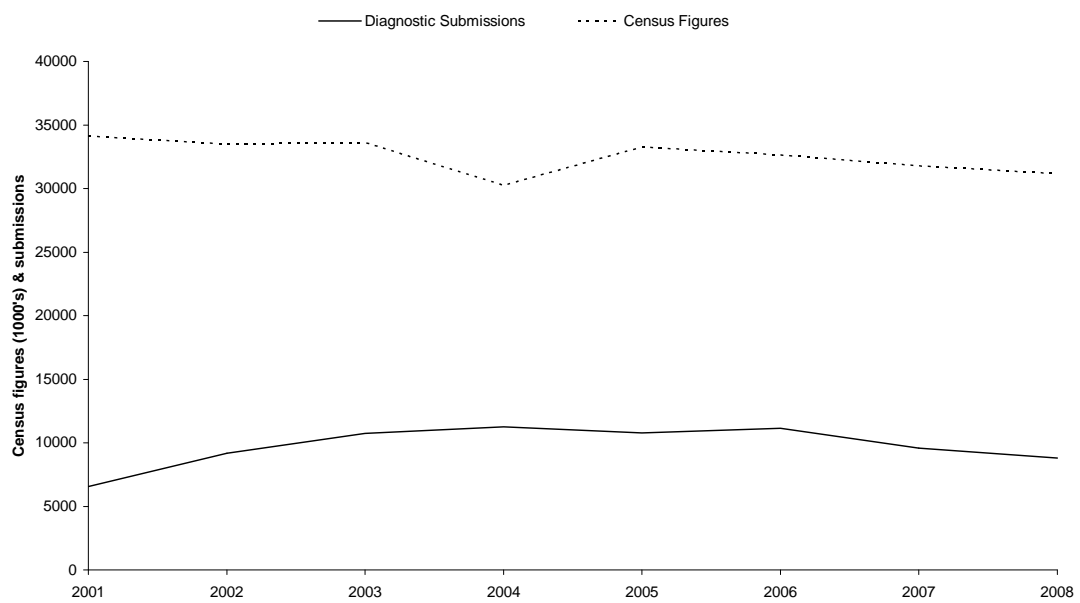


Fig 14: All incidents of fasciolosis in sheep in 2001 - 2008

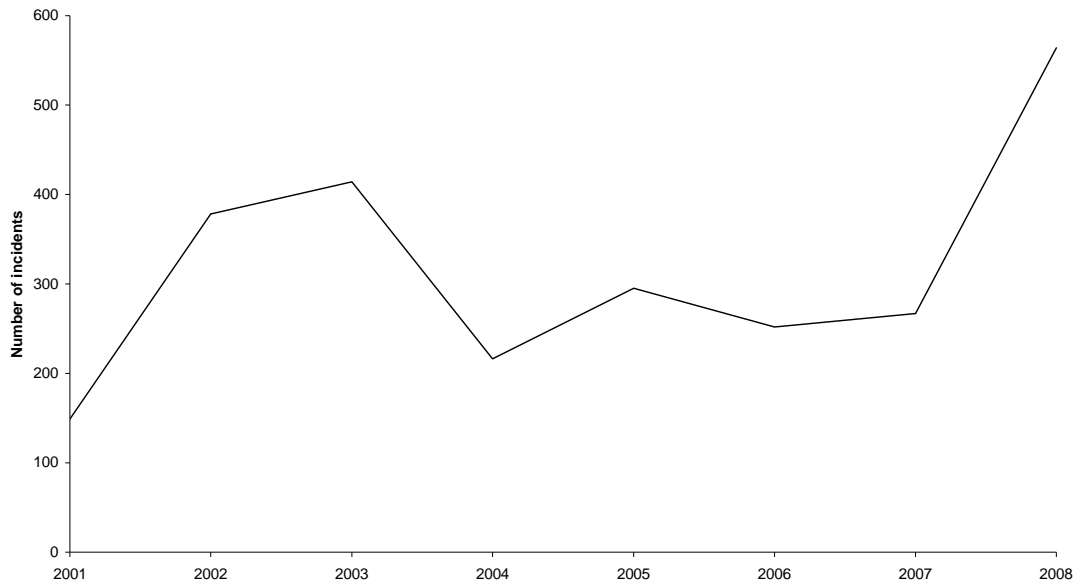


Fig 15: All incidents of PGE - including haemonchosis, nematodiriasis and not otherwise specified in sheep 2006 - 2008

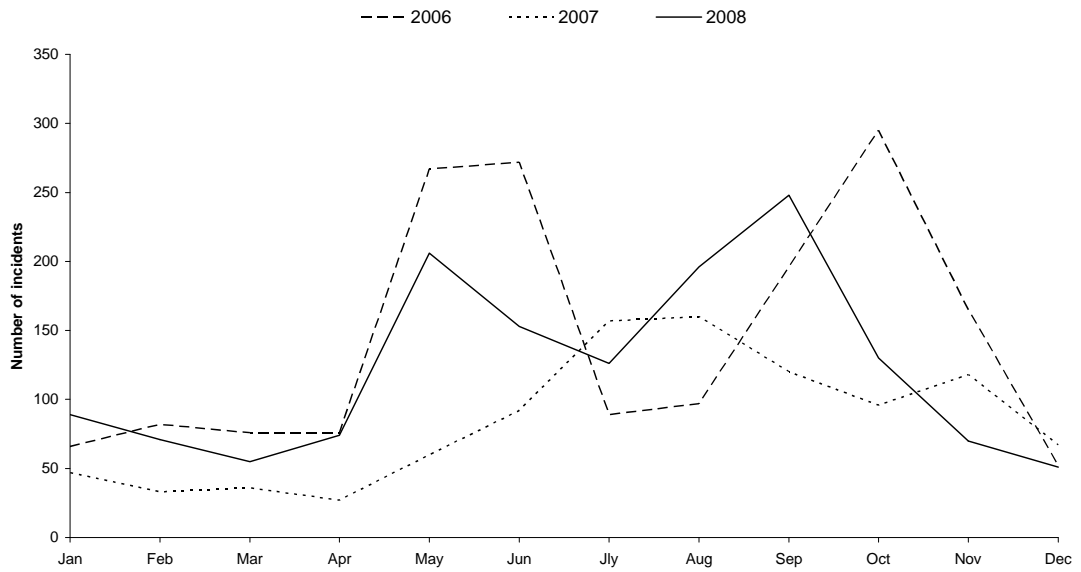


Fig 16: Goat diagnostic submissions vs total goat population in Great Britain 2001 - 2008

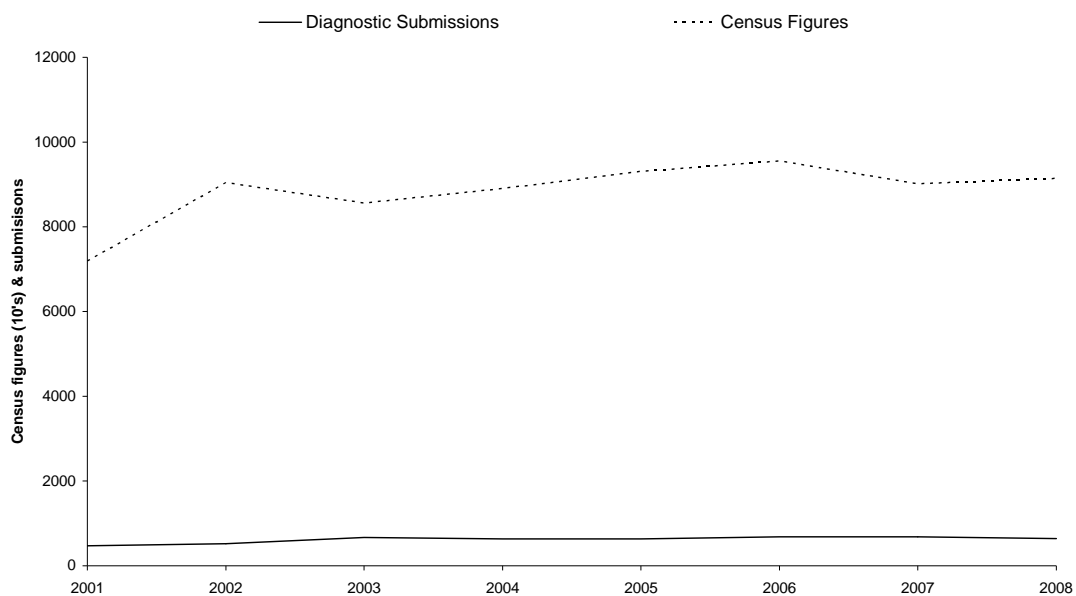
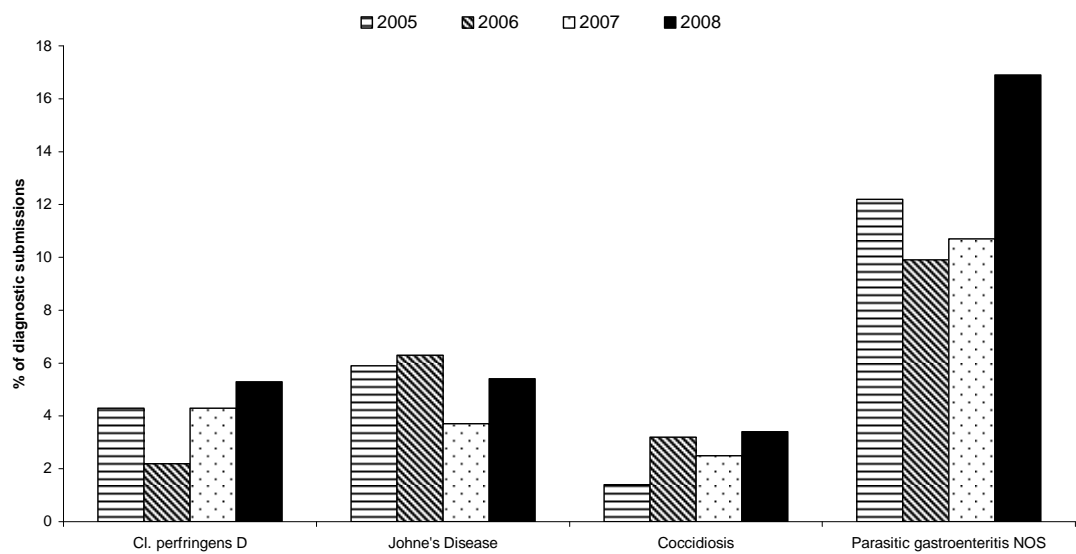


Fig 17: All incidents in goats in Great Britain as a percentage of total diagnostic submissions 2005 - 2008



PIGS

Fig 18: VIDA diagnostic pig submissions 2001 - 2008

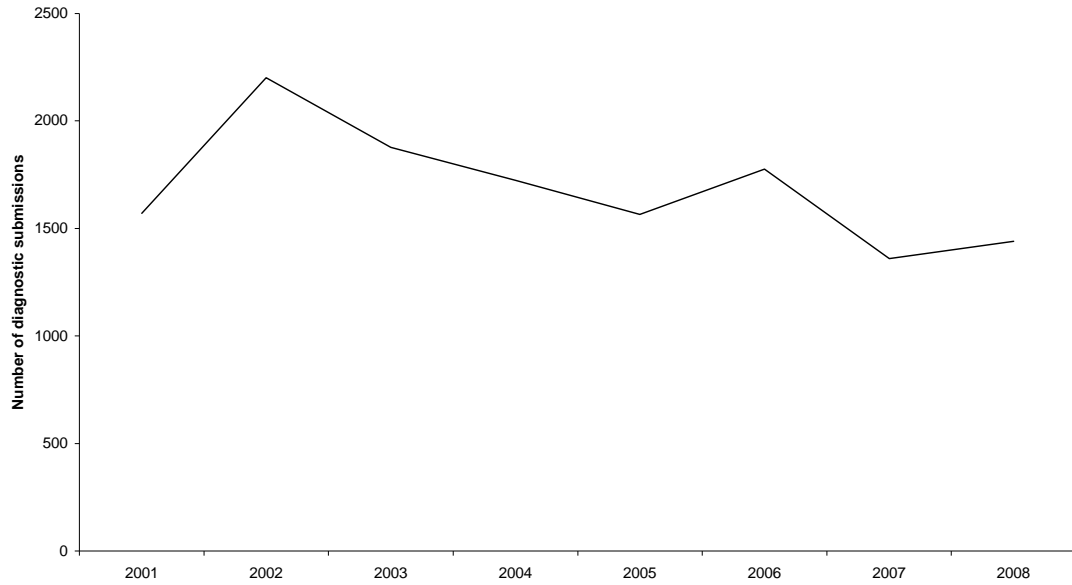
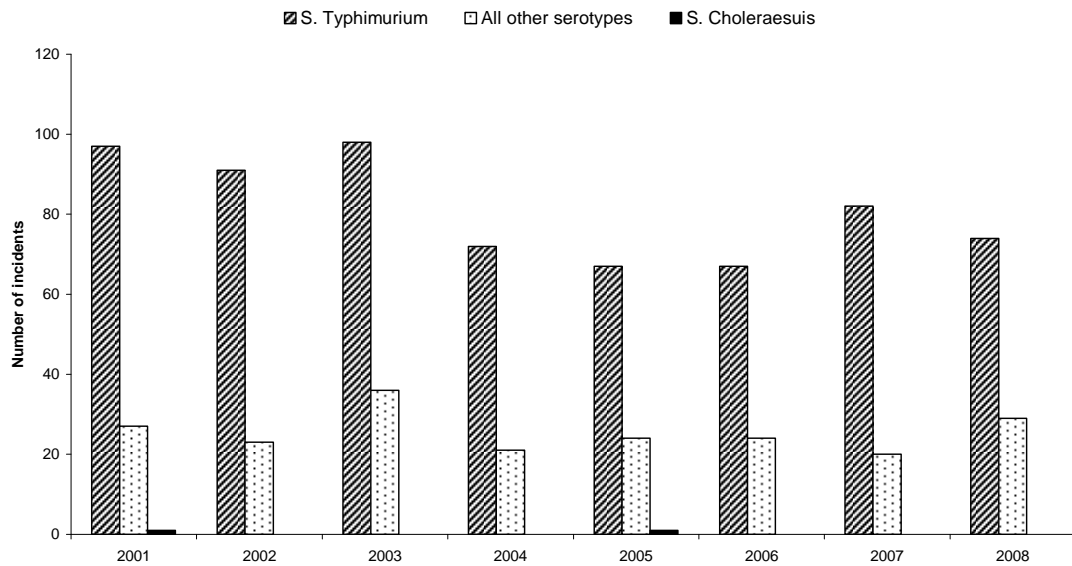


Fig 19: All incidents of Salmonella Typhimurium and Salmonella Choleraesuis in pigs 2001 - 2008



BIRDS

Fig 20: Total bird submissions in GB 2001 - 2008

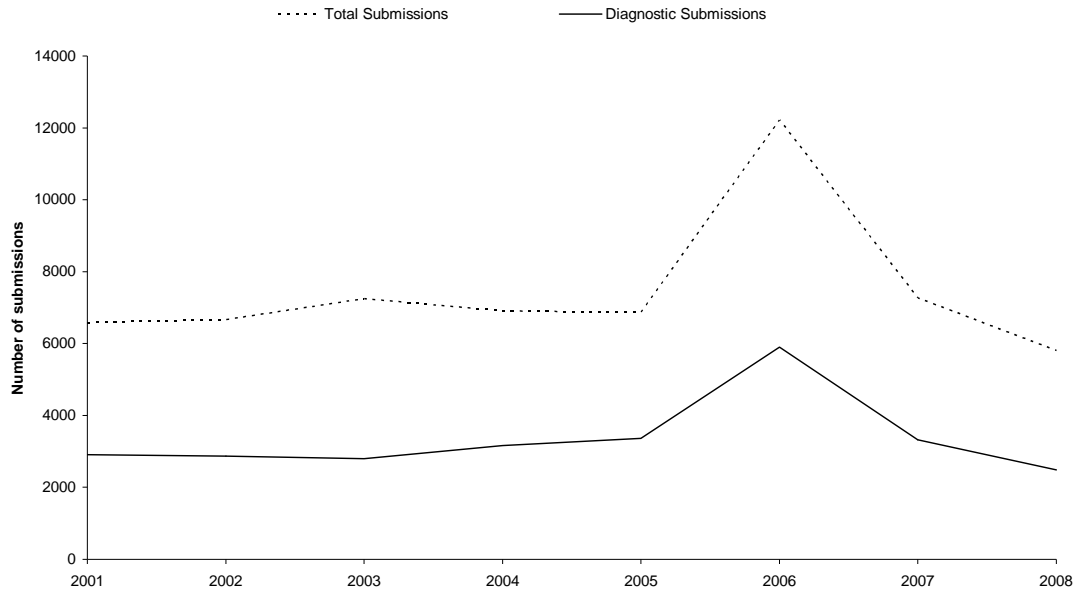
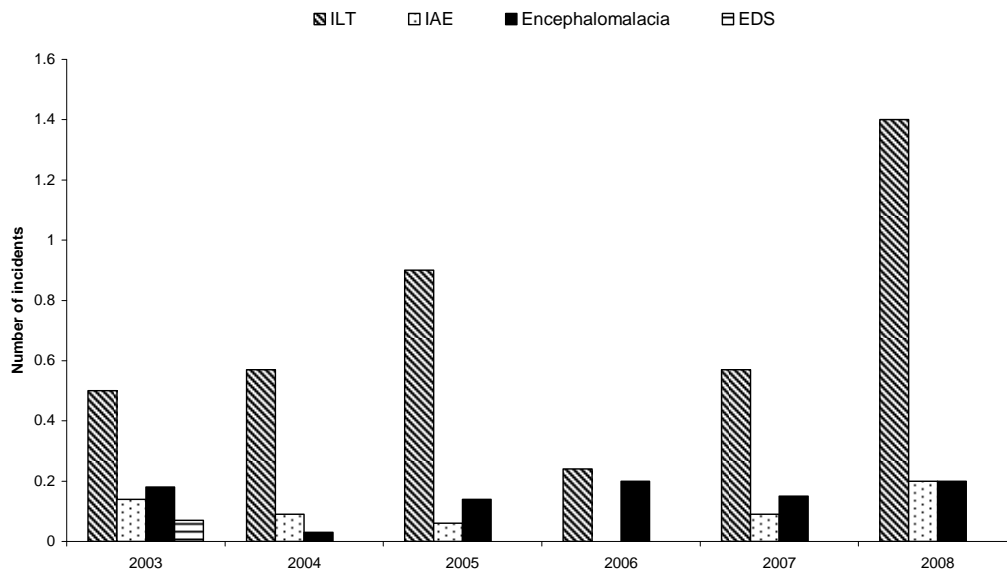
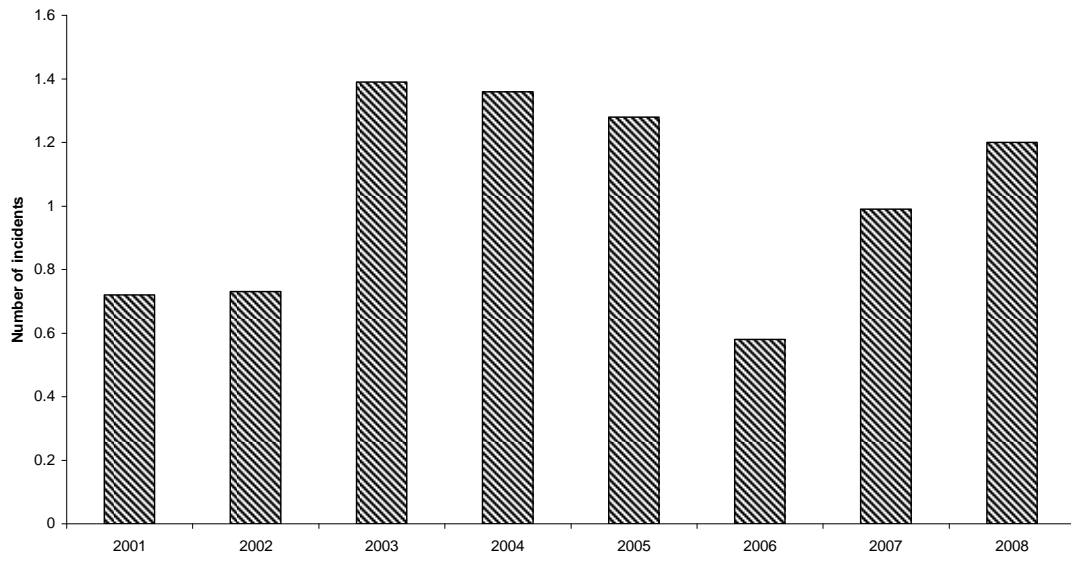


Fig 21: All incidents in birds in Great Britain as a percentage of diagnostic bird submissions 2003 - 2008



**Fig 22: All incidents of blackhead as a percentage of diagnostic bird submissions in Great Britain
2001 - 2008**



TABULATED DATA

As well as the information published in the annual VIDA book, there is a customised data retrieval service from the extensive VIDA database. Information can be retrieved for any number of years from 1975 to the current year, for cattle, sheep, pigs, birds, goats, horses, rabbits, fish, dogs and cats, and since 1990 for deer and badgers. Birds can be classified into a large number of different categories. Other variables include age, diagnosis from a specific sample type, and county of origin.

Further details of customised ad hoc retrievals, including a cost quotation are available from:

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