

VIDA 2006

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 2006. The total number of submissions received in 2006 was 112,592. This includes the total number of diagnoses given in the tables and 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 2006 CERA (previously called the Epidemiology Department) of the VLA Weybridge received 74 such requests for information, involving 1,098 individual data retrievals.

Data from the SAC is being enhanced and will shortly be imported into a new Great Britain VIDA database that will be used to provide reports on disease trends across the whole of Great Britain.

Bias in VIDA

Total numbers of submissions recorded by VIDA represent only the material submitted to VLA Regional Laboratories and SAC Disease Surveillance Centres for investigation. 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 2006: 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 2006 livestock data is taken from the June Agricultural Census figures (MAFF statistics 2006) 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 2006.

Livestock population

Cattle

The total cattle population, including calves, in Great Britain fell to just over 8.6 million animals in 2006, a decrease of 1.1% compared with 2005.

Dairy Cattle

The total dairy herd fell slightly (0.1%) in 2006 and currently stands at just under 1.8 million animals.

Beef Cattle

The total beef breeding herd decreased by 1.1% in 2006 and now stands as just under 1.5 million.

Sheep

There was a decrease of 1.92% in the total sheep population, including lambs, in 2006 compared with 2005 and the national flock now stands at just under 33 million animals. The total adult sheep flock also decreased (by 1.4%) and is now at just over 16.6 million.

Goats

The total goat population increased slightly by 0.9% in 2006 to almost 96,000 animals.

Pigs

There was an increase of 2.0% in the total pig population in 2006 compared with 2005 and the national herd now stands at just over 4.5 million animals.

Poultry

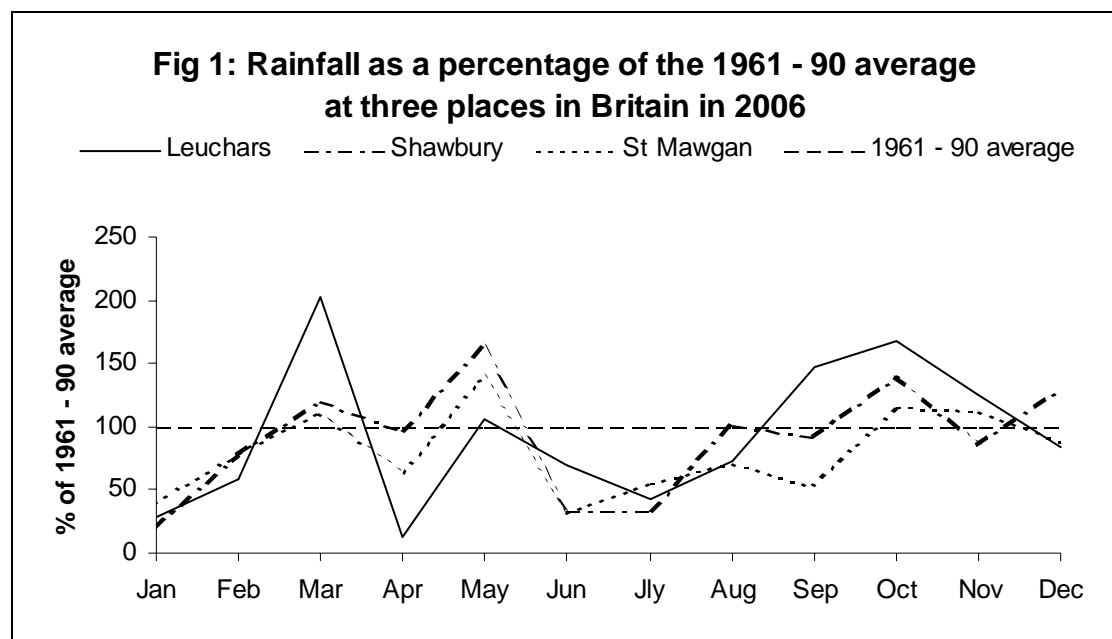
The number of laying fowls for eating-egg production decreased by 3.4% in 2006 compared with 2005 and now stands at just over 27.6 million. There was also decrease (1.3%) in the number of broilers and other table fowls to just under 98 million birds.

Meteorological data

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

Overall January 2006 was cold and dull although there were several sunny days, mainly in southern England. It was also the driest January for nine years with barely 10mm of rain reported from several places in Scotland, eastern England and the Midlands. Despite a mild period in the middle of the month, it was the coldest January since 2001 with widespread frost and freezing fog in many areas.

January's cold weather continued into the first week of February, and although most areas were dry during this time, they were also dull. In contrast, the middle of February was relatively mild with moderate to heavy rain in all areas, although there were also sunny periods in many places. Towards the end of the month there were cold north-easterly winds with snow showers, sleet and rain in many areas.

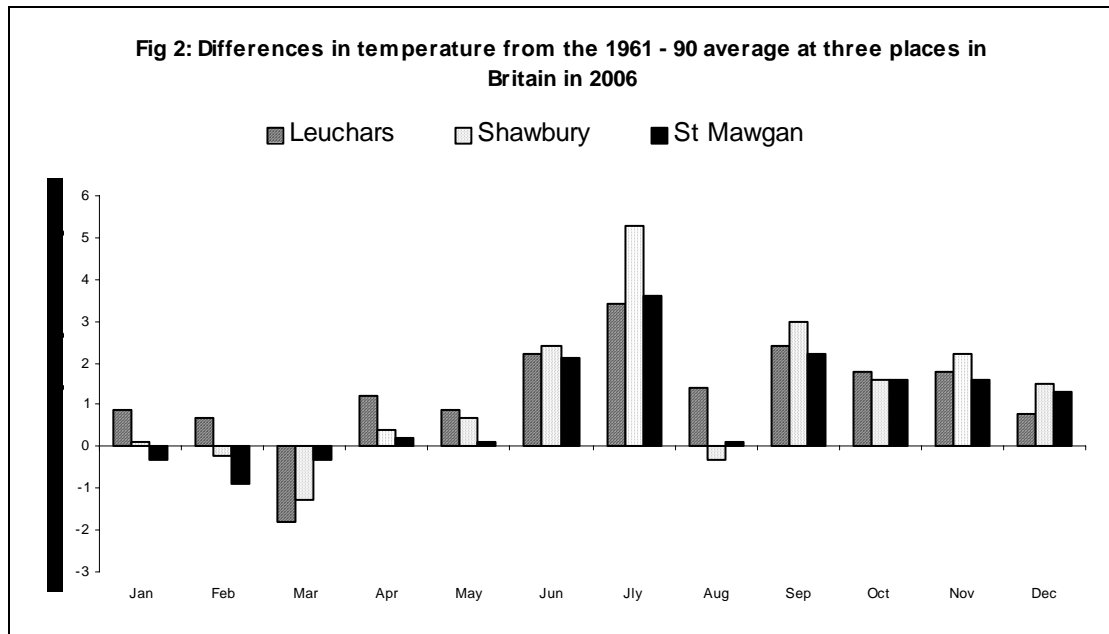


March was another cold month, the coldest since 1996, with frequent and occasionally heavy snow in Scotland. In East Anglia and southeast England it was slightly drier than normal, but all other areas experienced a very wet month with more than twice the usual amount of rain falling in many areas of Scotland, northern England and Wales. Many places also saw occasional light snow flurries, with heavier snow affecting northern areas of Britain mid-month. The cold weather abated for the first few days of April before returning with night frosts, hail, sleet and snow making it the coolest April for five years.

May was a month of two halves; the first half of the month was sunny and very warm, the warmest first half since 1945, and the second half was cool and very wet, the wettest second half since 1979. Large parts of England and Wales had twice the normal amount of rain, but locally in parts of northern Scotland it was drier than normal. June began grey and damp but soon became dry, sunny and warm with a few isolated thundery showers. The 11th and 12th were the hottest days of the month with widespread thunderstorms in many areas and localised flooding in the south west of England. After a few days of cooler, windier weather it again became warm and thundery with more localised flooding.

July 2006 was the hottest and sunniest on record over much of the UK and although there were thundery downpours in some areas, it was mostly drier than average. The first week of the month was very warm and humid with severe storms in some areas of northern England, the Midlands and southwest England; some areas experienced hailstorms and there was flooding in other areas. With the exception of a few less-humid days around the middle of July, the remainder of the month was also hot and humid and there were some severe storms accompanied locally by large hail and powerful squalls. Towards the end of the

month temperatures declined, although they still remained well above average.



In contrast to July, there was very little sunshine during August and over England and Wales it was the dullest August since 1986. There were more thunderstorms throughout the month with serious, but short-lived, flooding in some areas in southeast England. During the last week of August a number of short-lived tornadoes were reported. September 2006 was another exceptionally warm month and was the warmest September on record. Rainfall was below normal in parts of southwest England, but above normal in western and central Scotland and parts of East Anglia. The first few days of September were cloudy with strong winds but the second and third weeks of the month were particularly humid and there were widespread thunderstorms and heavy rain.

October was the third warmest on record, with only 2001 and 2005 being warmer; this warmth was particularly noticeable at night. Rainfall was above average for most parts of the country with heavy falls at regular intervals, some accompanied by thunder and strong winds. The

warm conditions in October gave way to cold weather for the first week of November when there were sunny days and frosty nights with morning fog in parts of England and Wales. This cold spell though was short-lived and very mild conditions returned for the remainder of the month. Rainfall was variable during November with parts of the north and west being very wet whilst other areas of eastern England received less than the average rainfall for the month. Towards the end of the month there were outbreaks of torrential rain accompanied by hail and thunder across many central and eastern districts leading to serious but short-lived flooding. There were also reports of small tornadoes in several areas.

December was mild, and despite a frosty spell over Christmas it was the warmest December since 1988. Rainfall and sunshine levels overall were only slightly above normal, but there were huge contrasts across Scotland with some areas having their wettest December on record and some their driest since 1991. Persistent fog affected large areas of England during the middle of the month, but in contrast some areas were exceptionally sunny.

DISEASE TRENDS IN 2006

Veterinary comment on trends in VIDA diagnostic data can be found in the Quarterly and Annual reports of the VLA Species Groups: (<http://www.defra.gov.uk/corporate/vla/science/science-end-survrep-qtly.htm>). There are reports for cattle, small ruminants (sheep & goats), pigs, birds (poultry & game birds), miscellaneous & exotic farmed species and wildlife. The Species 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. The Species Groups take the lead in the investigation of new & emerging diseases identified by VLA scanning surveillance activities (<http://www.defra.gov.uk/corporate/vla/science/science-end-survrep-month.htm>).

Fig 4: Total cattle submissions in GB 1999 - 2006

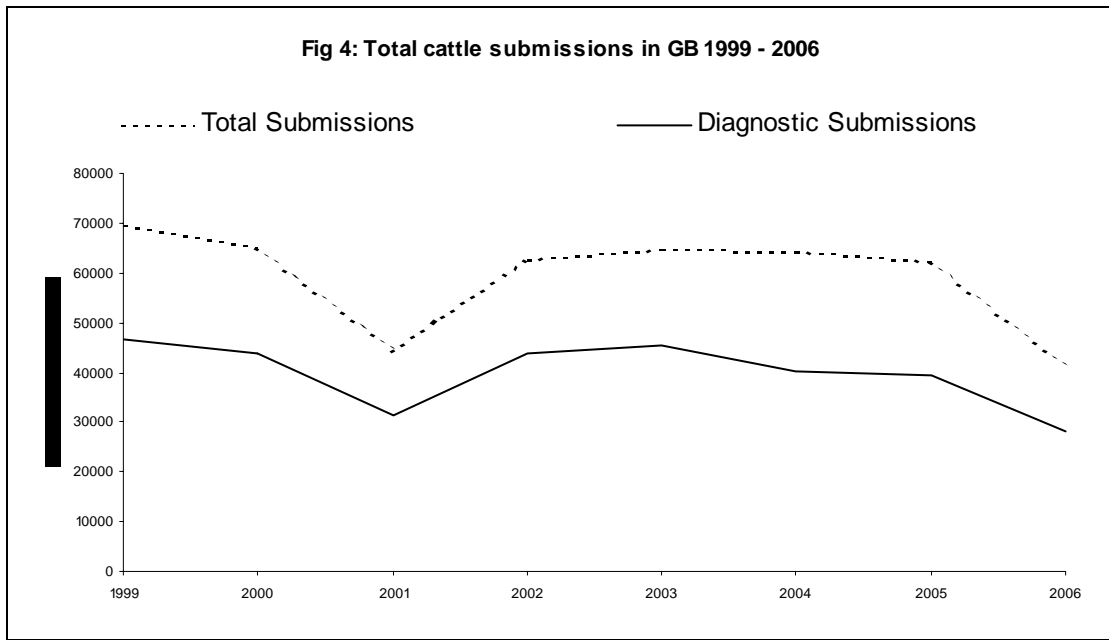


Fig 5: Diagnosis of bovine fetopathy in 2006 (excluding "fetopathy diagnosis not reached") as a percentage of all bovine fetopathy diagnoses (n=870)

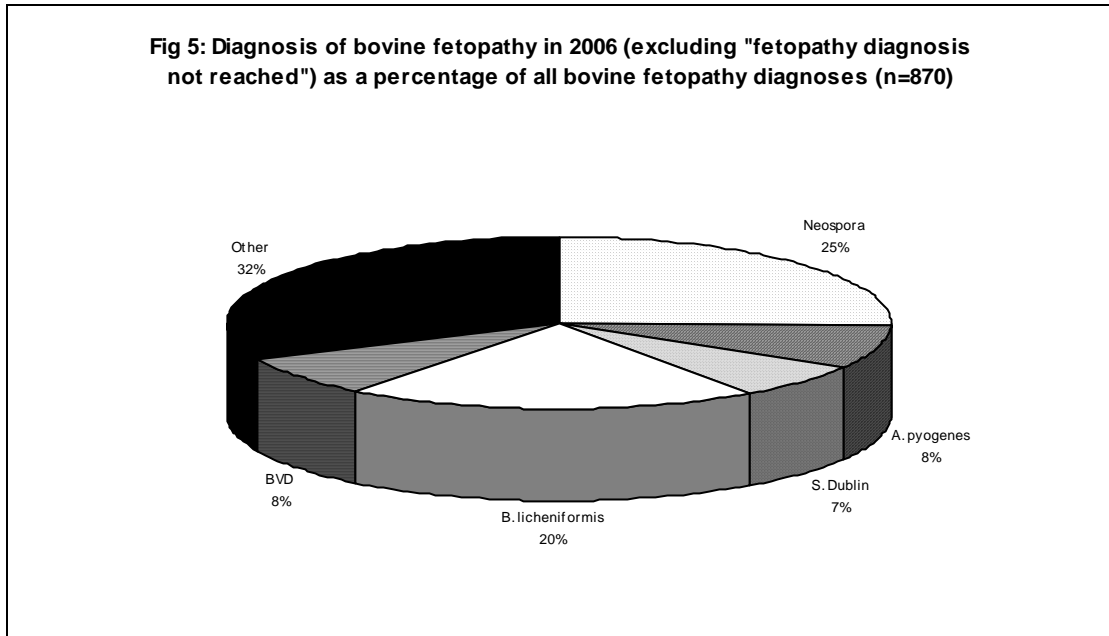


Fig 6: All incidents of salmonellosis other than fetopathy in cattle 1999 - 2006

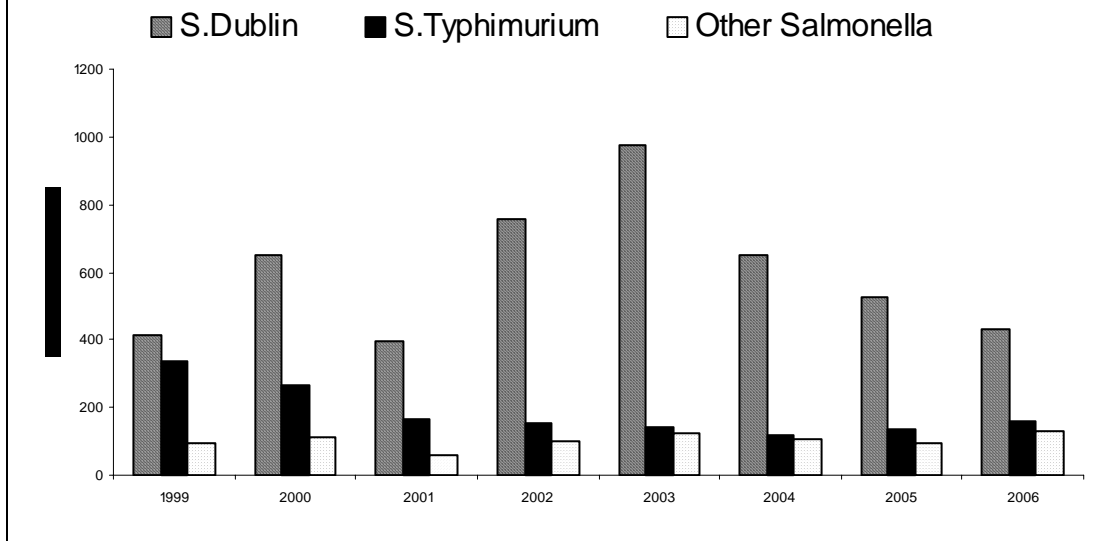


Fig 7: All incidents of fasciolosis in cattle in 1999 - 2006

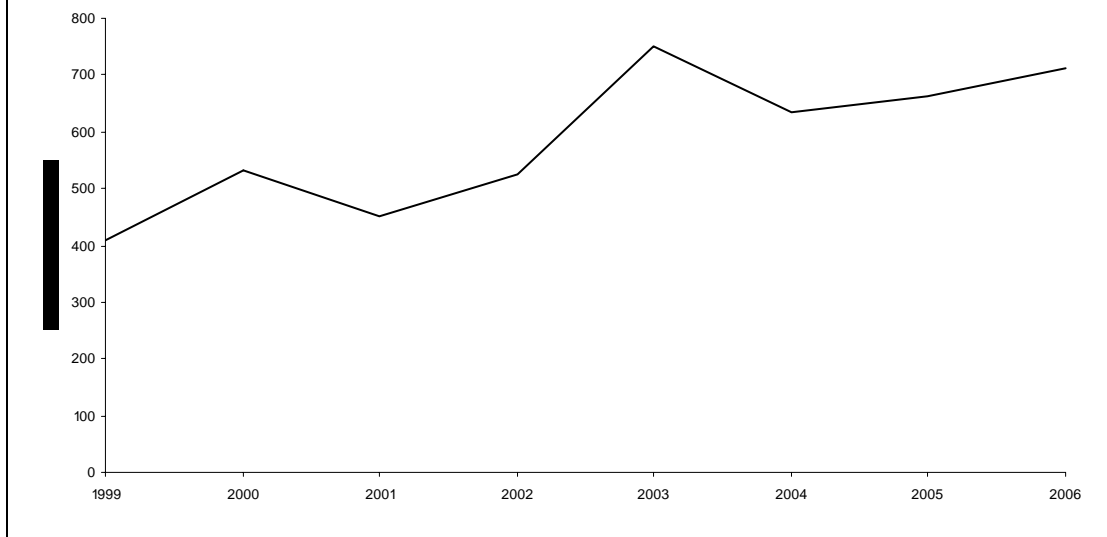


Fig 8: All incidents of BVD in cattle in 1999 - 2006

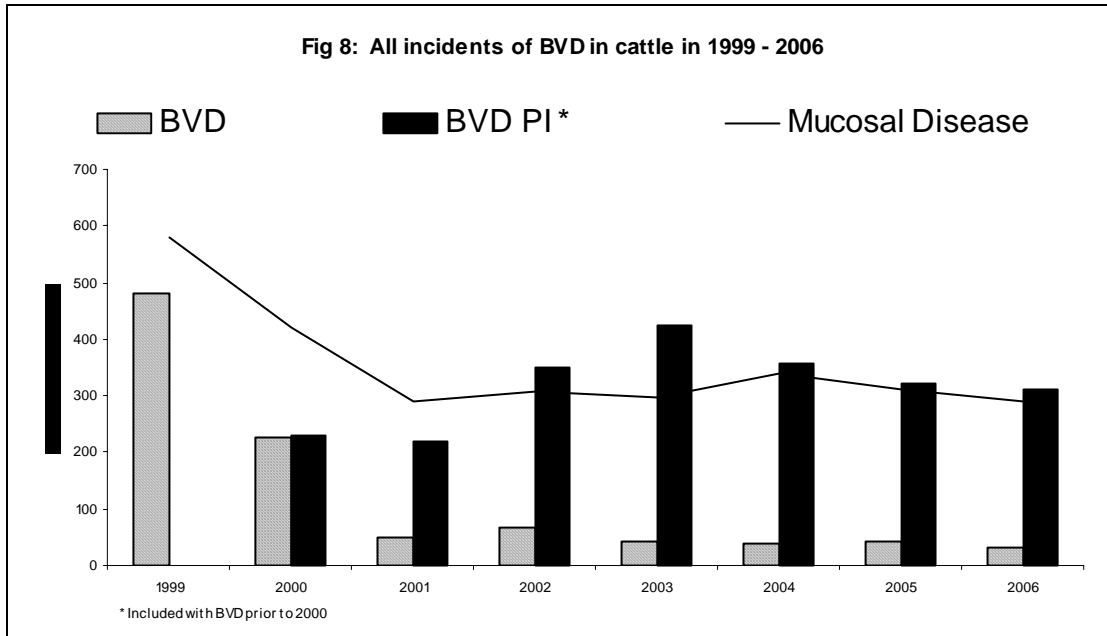


Fig 9: All incidents of Johne's Disease in cattle in GB 1999- 2006

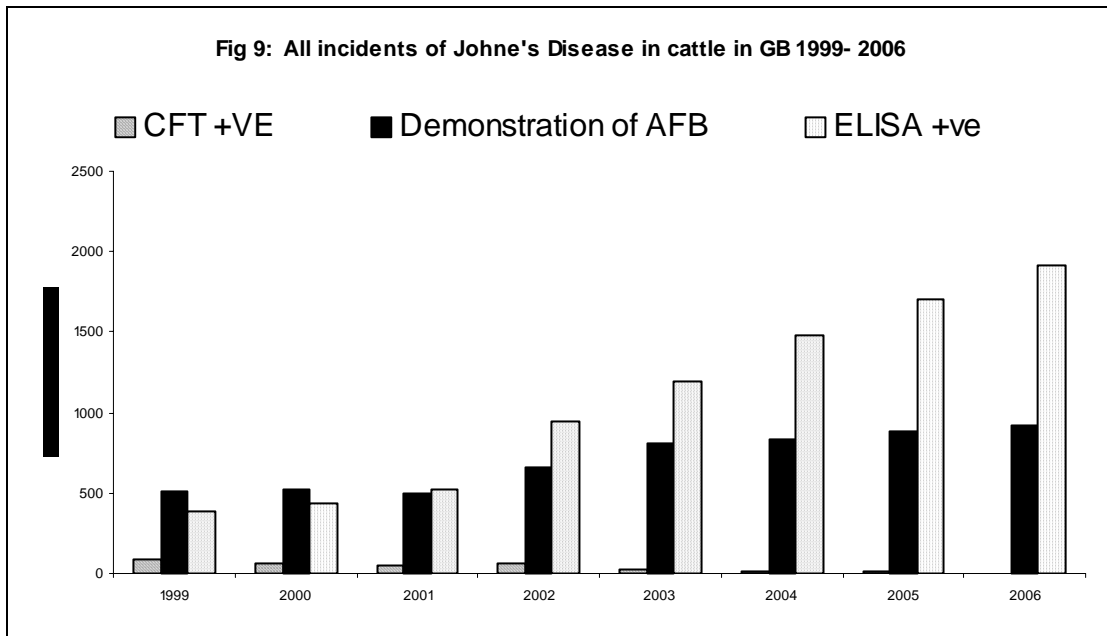


Fig 10: All incidents of mastitis in cattle in Great Britain as a percentage of total mastitis diagnoses in 2006 (n=4728)

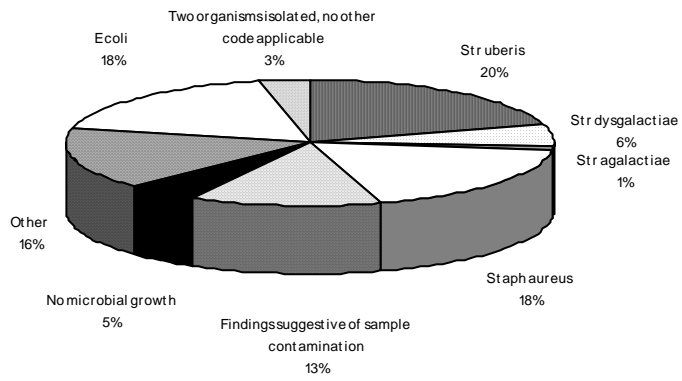
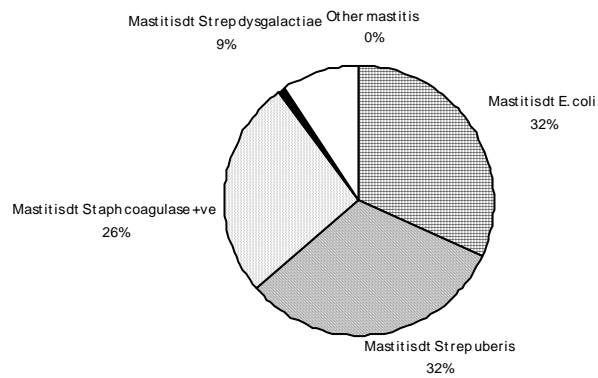


Fig 11: Clinical mastitis in cattle by pathogen in England and Wales in 2006 (n = 3027)



**Fig 12: Sub-clinical mastitis in cattle by pathogen in England and Wales in 2006
(n =658)**

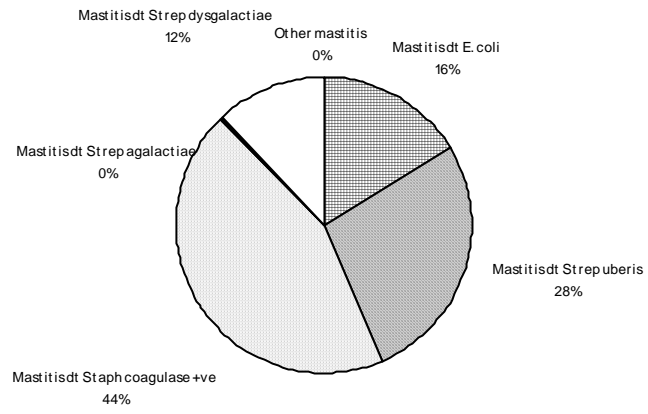


Fig 13: VIDA sheep diagnostic submissions vs total GB sheep population 1999 - 2006

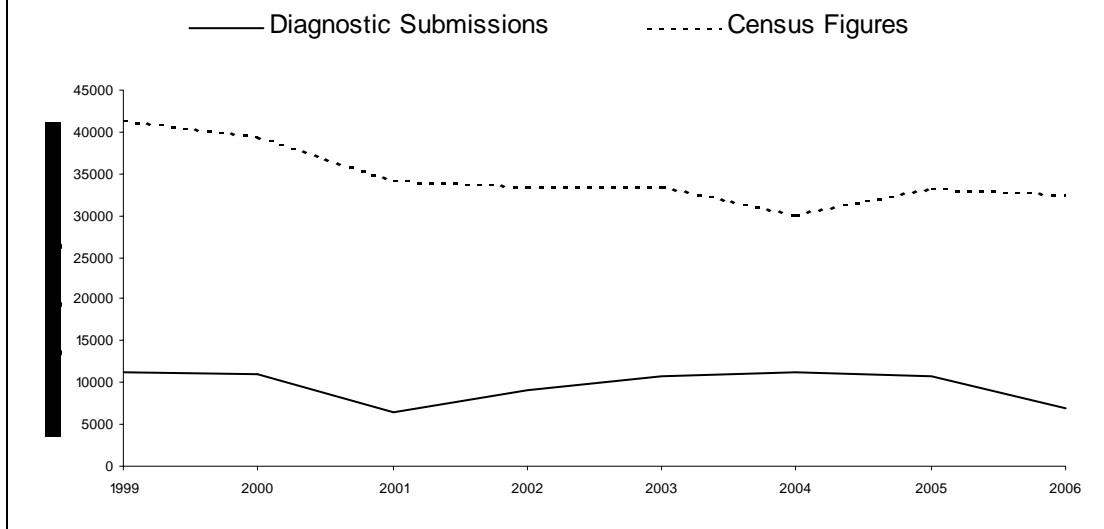


Fig 14: All incidents of fasciolosis in sheep in 1999 - 2006

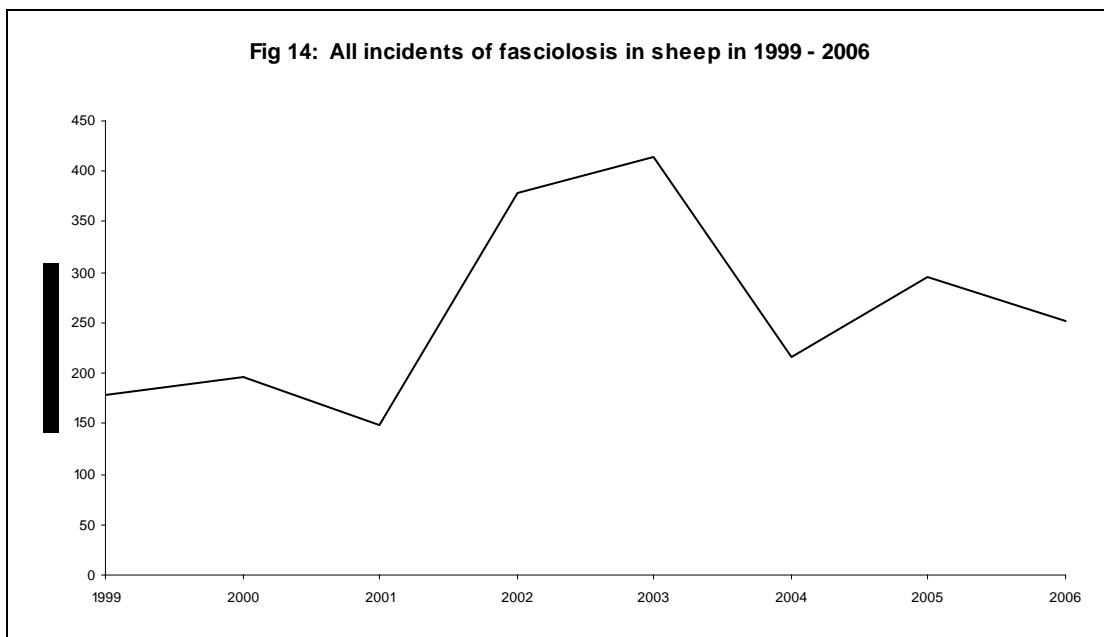


Fig 15: All incidents of PGE - including haemonchosis, nematodiriasis and not otherwise specified in sheep 2004 - 2006

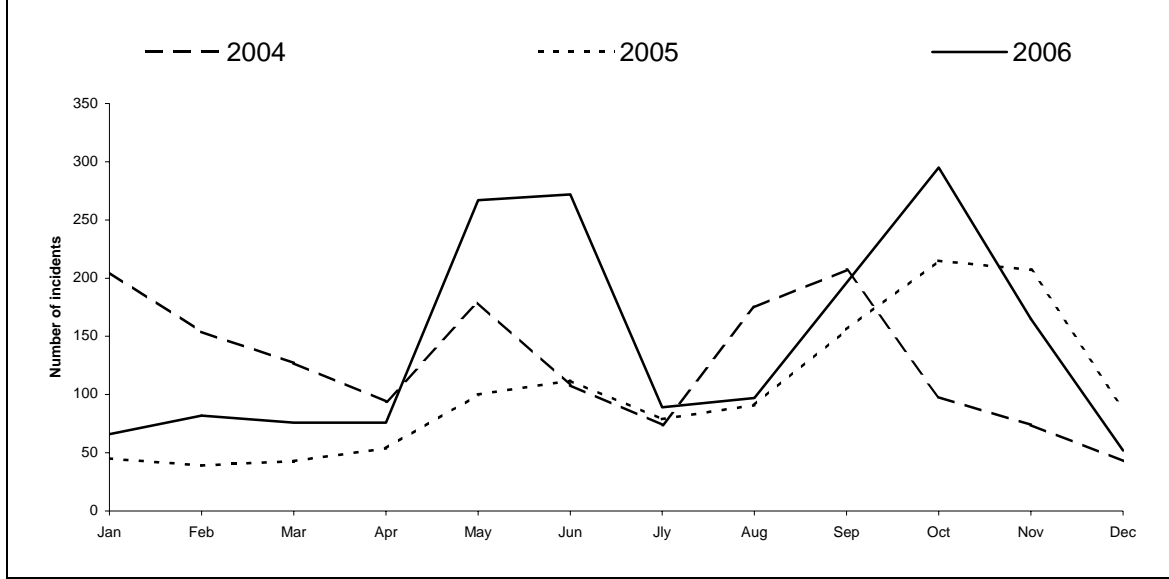


Fig 16: Goat diagnostic submissions vs total goat population in Great Britain 1999 - 2006

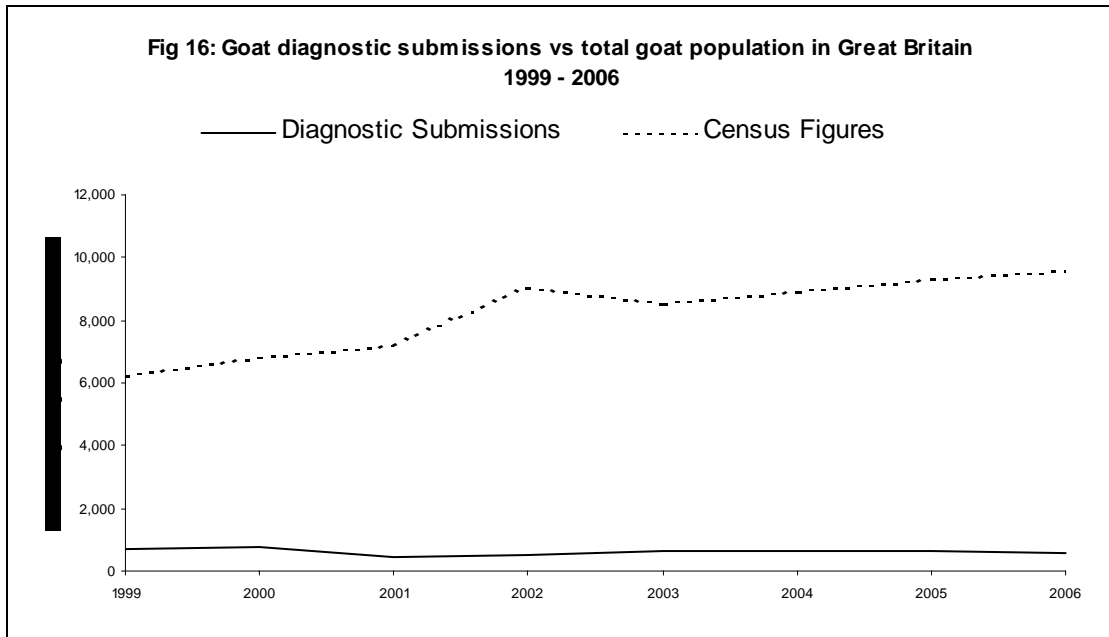


Fig 17: All incidents in goats in Great Britain as a percentage of total diagnostic submissions 2003 - 2006

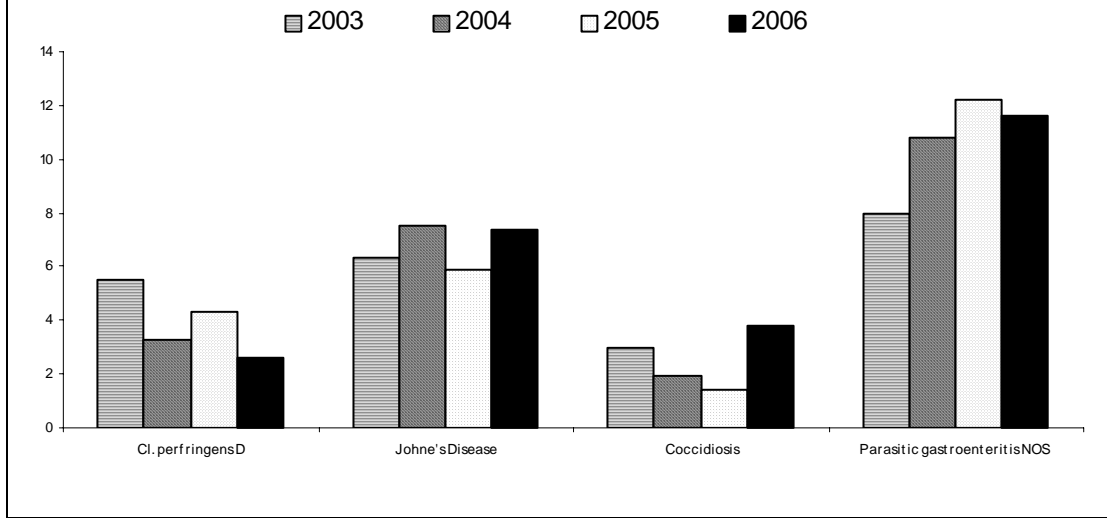


Fig 18: VIDA diagnostic pig submissions vs pig breeding herd 1999 - 2006

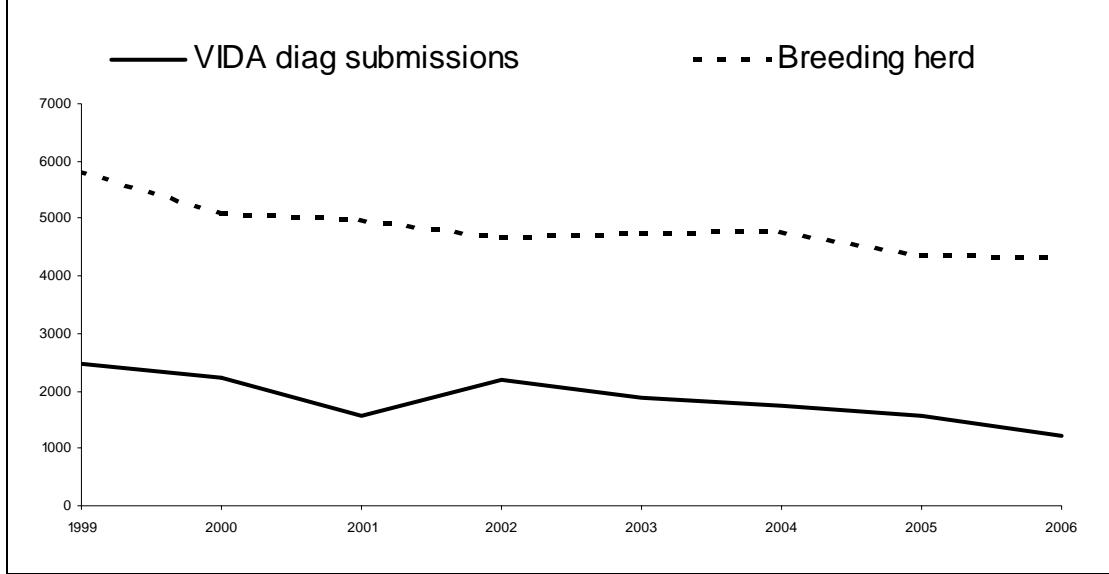


Fig 19: All incidents of *Salmonella* Typhimurium and *Salmonella* Choleraesuis in pigs 1999 -2006

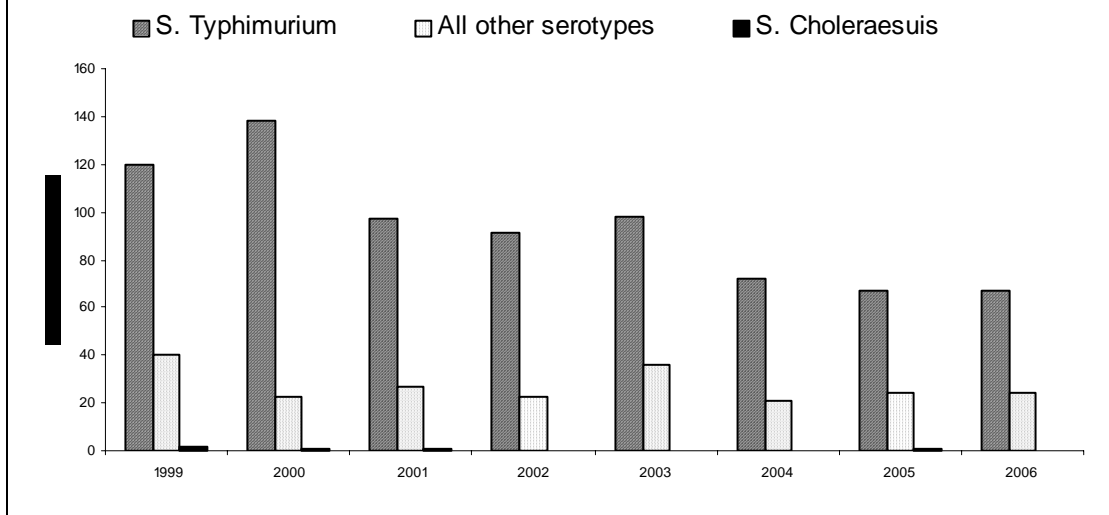


Fig 20: Total bird submissions in GB 1999 - 2006

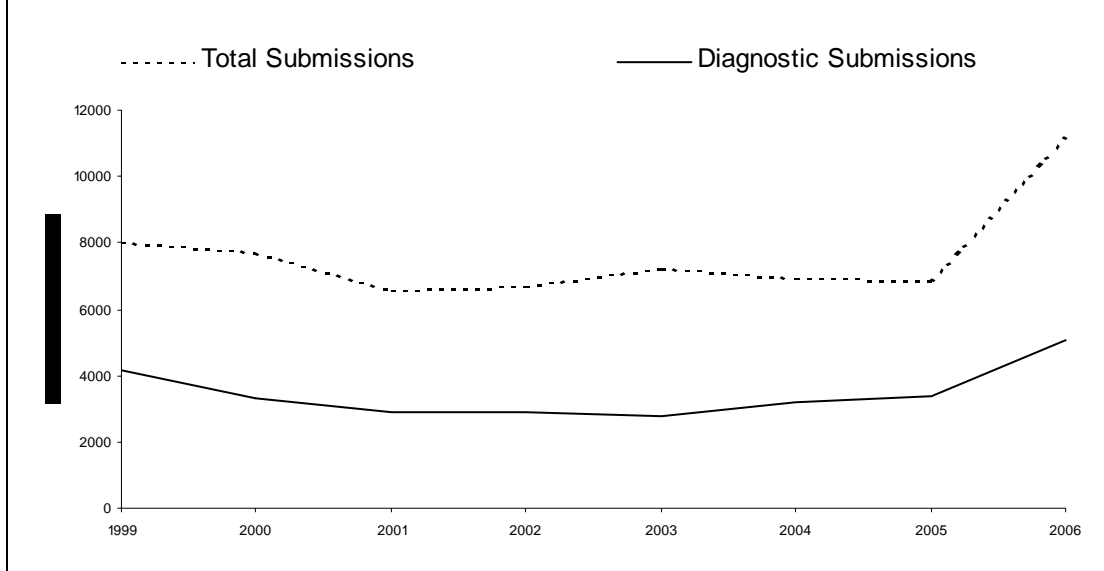


Fig 21: All incidents in birds in Great Britain as a percentage of diagnostic bird submissions 2002 - 2006

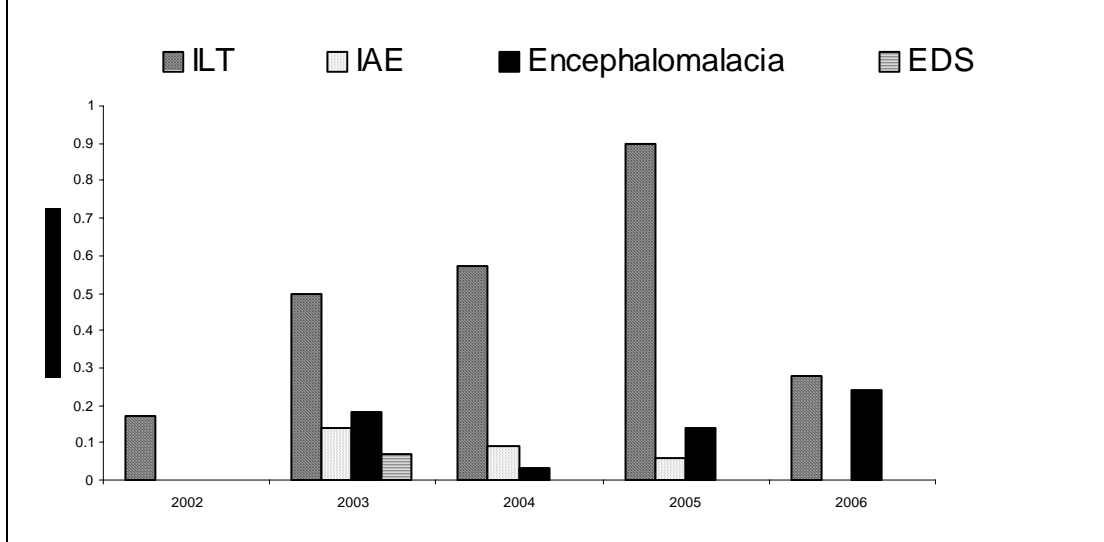
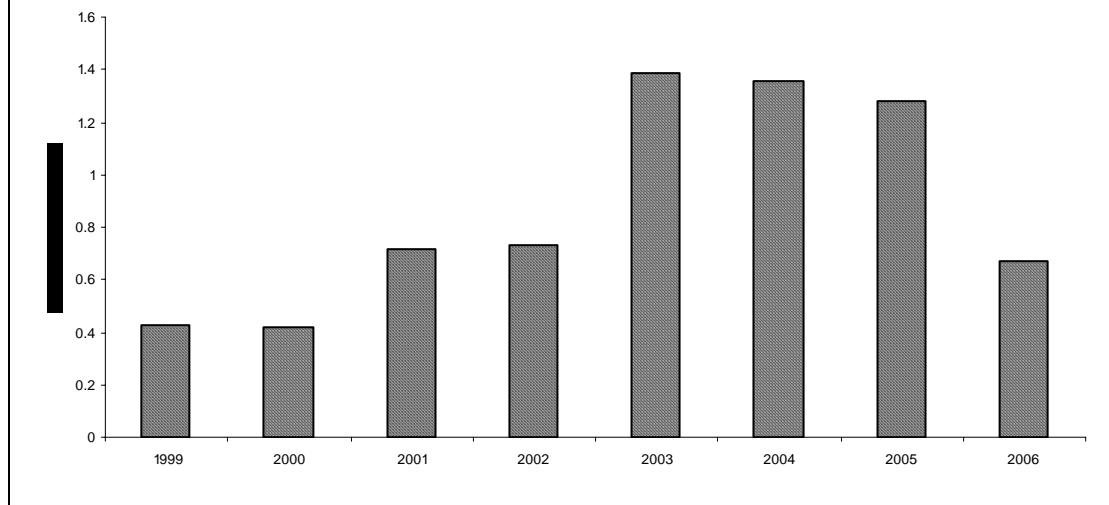


Fig 22: All incidents of blackhead as a percentage of diagnostic bird submissions in Great Britain 1999 - 2006



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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