

### Microchipping and Litter Screening

From July 1<sup>st</sup> 2017 it will be a requirement for puppies to be microchipped prior to litter screening and the aim of this short briefing paper is to provide helpful information prior to its introduction.

Litter screening under the British Veterinary Association/Kennel Club/International; Sheep Dog Society Eye Scheme for inherited congenital and neonatal eye disease is carried out at between 5-12 weeks of age.

The insertion of a microchip (transponder) as a means of permanently identifying dogs is compulsory in Northern Ireland, the Republic of Ireland, England, Wales and Scotland. The legislation requires all dogs to be microchipped by 8 weeks of age, except for the Republic of Ireland where it is 12 weeks of age. Puppies can, of course be microchipped before they are 8 weeks of age, so the current UK arrangement offers flexibility.

The development of the eye is complete by about 12 weeks of age and one Schedule A condition, Collie Eye Anomaly (CEA), may be more difficult to diagnose at 12 weeks because post-natal development can obscure mild CEA lesions; the so-called 'go normal'. For this reason it is recommended that breeds in which CEA occurs (Border Collie, Lancashire Heeler, Shetland Sheepdog, Rough and Smooth Collie) are litter screened by 8 weeks of age and the best time in terms of simplicity of diagnosis is probably 5-7 weeks of age, although careful examination at 8 weeks of age should also be reliable.

The International Sheep Dog Society made microchipping a requirement for Border Collie puppies prior to registration and litter screening in 2013 and no serious adverse effects, defined as those that cause actual harm to the puppy, have been reported to date.

Although microchip size may vary within a narrow range, the majority of microchips used in companion and laboratory animals, such as mice, are 2 mm in diameter and 12 mm in length, a smaller mini microchip of 8mm length is also available. In terms of when to microchip a litter, the size of the puppy is not a limiting factor.

The Veterinary Medicines Directorate (VMD) runs a monitoring scheme under which adverse events relating to microchips can be reported. The scheme records implantation reactions, microchip migrations and microchip failures and we would urge that this scheme is used by all involved to aid data collection. A Microchip Adverse Event Reporting Form can be submitted to the VMD online (<https://www.vmd.defra.gov.uk/adversereactionreporting/>).

The most up to date information on adverse events that we can provide courtesy of the VMD covers the period 1/12/2015 to 31/12/2016. VMD has received 3457 reports. Only 189 of the reports involved puppies microchipped at the age of 12 weeks or less and of these 69 related to microchip failure, 118 to microchip migration and 2 to implantation reactions. One reaction involved a Chihuahua puppy which had the microchip implanted into its brain; a potentially lethal event which the dog survived. Whilst the risk of this type of unsafe microchip insertion is exceedingly low, the impact is extremely high and, given the competency required of those who microchip dogs, coupled with awareness of this case, should never happen again. The other reaction involved a swelling developing at the site of the microchip 7 years after implantation – the swelling was aspirated and confirmed to be a lipoma (a benign tumour). The World Small Animal Veterinary Association (<http://www.wsava.org>) states in their Microchip Safety and Efficacy pdf that *“While it is not possible to claim that the reaction to an implanted transponder in a companion animal will NEVER induce tumour formation, the Committee is unanimously of the opinion that the benefits available to implanted animals far outweigh any possible risk to the health of the animal concerned.”*