

## **Update on a recent R&D project to investigate de-husking of seeds by small mammals: Implications for regulatory risk assessment**

During evaluation of seed treatment applications, CRD ecotoxicologists frequently need to refine the risk assessment to determine whether the risk to mammals is acceptable. In such cases, applicants often use de-husking behaviour to mitigate the risk to mammals, referencing an 85% de-husking value (SANCO/4145/2000).

Due to high variability between different seed types, different species and individuals within a species, CRD does not accept this value, unless fully supported by the Applicant.

Since there is very little robust information on de-husking behaviour in small mammals, CRD commissioned a new research project (PS2349), to investigate the role de-husking plays in reducing pesticide exposure to mammals and to determine a methodology to quantify the risk.

The [Final Report](#) has been published on the defra website. The project was conducted primarily on the woodmouse, *Apodemus sylvaticus* and to a lesser degree, the bank vole, *Clethrionomys glareolus*, using blue-dyed seeds of 7 common agricultural seed types grown in the UK.

A methodology has been developed to quantify the amount of ingested residue. The project results indicate high variability between seed types, species and individuals; significant amounts of residue on the seed surface from all seed types (except peas and pelleted sugar beet) are consumed by small mammals during de-husking; exposure via ingestion of residues on treated seeds during de-husking is greater for most seed types than the 85% de-husking value suggests.

Applicants should be aware that a methodology to determine ingestion rates of residues on treated seeds is now available. However, since the data from this project have not yet been validated with actual pesticide compounds, ingestion rates calculated within the study cannot be used to refine the mammalian risk assessment for seed treatments. CRD anticipates this work will be progressed further, in collaboration with industry. In the meantime, should applicants wish to use de-husking as a refinement step for mammalian risk assessments for seed treatments, they are welcome to use the methodology detailed in the [Final Report](#) of project PS2349, in conjunction with guidance detailed in EFSA Guidance Document on Risk Assessment for Birds and Mammals, 2009. Prior to undertaking such studies, discussion with CRD on the study design and in particular, the use of the data generated to refine mammalian risk assessments for seed treatments, is encouraged.