



University of Hertfordshire Agricultural Substance databases NEWSLETTER

Issue 3: June 2019

Welcome to the latest newsletter relating to the University of Hertfordshire's agricultural substance databases. Whilst we have been a bit slow creating these newsletters, it's not because we have been idle in developing and updating the service – a great deal has been going on. In this issue we will update you on recent database development activity, global usage and our services and support activities.

Recent development activity



There have been a number of significant developments to the database over the last year or so. Regulatory risk assessments continue to develop and that means there is a constant need for new data.

One of the major changes has been an extension to the range of ecotoxicology data stored and available online. This is over and above the extensive dataset we have on *Apis*-bees (honey bees) and is in response to the worrying global decline in pollinator species as well as the inclusion of these species in regulatory risk assessments in much of the developed world. We now have (where available) data for bumblebees (*Bombus* spp.), mason bees (*Osmia* spp.) and leafcutter bees (*Megachile* spp.). We have also worked with Bee.Watch (<https://www.bee.watch/>) and our bee toxicity data is used in their hazard warning indicator within their mobile phone app aimed at beekeepers and other stakeholders.



Late last year we also added dissipation rate data (RL₅₀) for pesticides on various different plant matrices (stems, leaves, roots, flowers and fruit). This information is important for operator safety but also allows residues on plants to be estimated to allow more accurate risk assessments for creatures that may come in contact with treated plants.

In the next couple of weeks there will also be an upgrade in the human health data particularly in respect of genotoxicity. This includes a simplification and weight of evidence interpretation of data published by EFSA. Data is subdivided into four main categories: Chromosome aberration; DNA damage/repair; Gene mutation and genome mutation (see <https://zenodo.org/record/582137#.XRW7BetKhyy>).

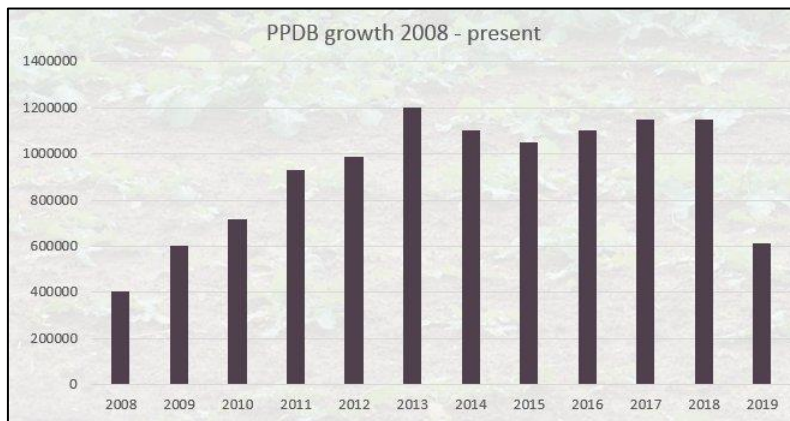
We have also done some work on the database user interface. Firstly, the online user interface delivered via IUPAC has been upgraded to match the new IUPAC branding. Secondly, in collaboration with the Cambridge Crystallographic Data Centre many of the more common pesticide molecules are now available in 3D format.

New substances continue to be added and in particular quite a few Chinese pesticides are now included in the database along with an expansion of biopesticides.

The screenshot shows the IUPAC website interface. At the top, there are navigation tabs for IUPAC HOME, AERB HOME, PPDB HOME, BPDB HOME, and VSDB HOME. The main content area is titled 'THE PPDB A to Z List of Active Ingredients'. It includes a search bar, a list of product constituents, and a list of numbers. The footer contains the University of Hertfordshire logo and the text 'ALSO AVAILABLE: THE VSDB THE BPDB'.

Database usage

We continue to be astonished at the global usage our databases have, especially the PPDB. The plot shows usage of the Pesticide Properties DataBase from 2008 up to June 2019 as the number of page loads. Typically 5000-7000 pages of information are downloaded daily. We have online tracking software in place which enables us to see usage rates, where users are and, in some instances, by which organisations (via IP address identification). The maps below show a snapshot of global usage mid-morning UK time in late June.



PPDB growth from 2008 to June 2019 shows as page downloads per year



PPDB usage at 11am 28th June 2019

Licence fees

Current fees for our user licences remain unchanged since 2014 and will not be reviewed until early 2020. Licence fees apply to users wishing to use the database offline in MS Access format and for users wishing to extract data from our system into their own databases and software applications. It also applies to anyone wishing access to data not published online (e.g. detailed information on soil degradation, absorption data and plant dissipation rates). Details of our prices can be found in the Goods and Services document on the relevant home pages of each database. If you already have a multi-year agreement in place, we usually give discounts if these are renewed early.

Contact us:

If you want more information on anything in this newsletter or on any aspect of the databases please contact us. Similarly, if we have something wrong or something is missing do please let us know.

PPDB Management Team
Agriculture and Environment Research Unit (AERU)
University of Hertfordshire
College Lane
Hatfield
Hertfordshire. AL10 9AB
United Kingdom
Tel.: +44 (0)1707 284548
Email: aeru@herts.ac.uk