



**Ministry of Environment
and Food of Denmark**
Environmental
Protection Agency

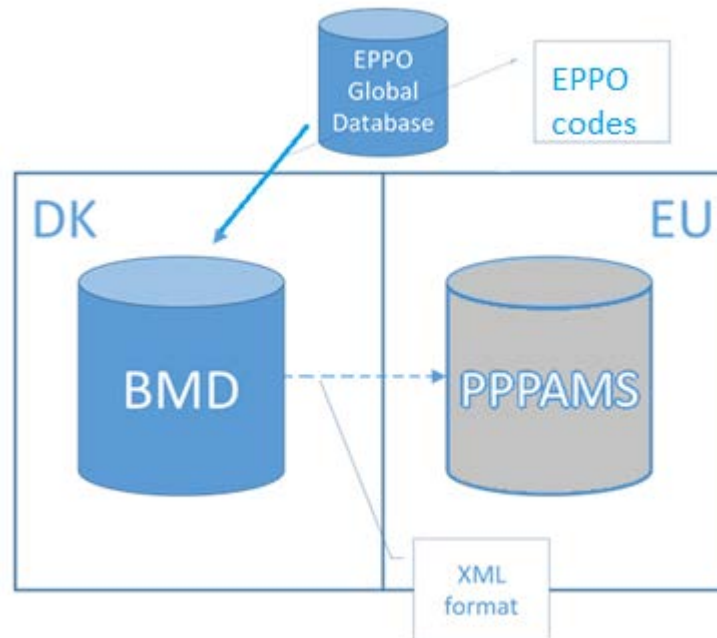
The use of EPPO codes by DEPA

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March 5th 2018

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Integration to EPPO global

- We use the SQL database with logShipping for updating
- The full EPPO data is imported into our application - we save all data
- The update of our application is done by a daily hangfire job via the logshipping
- The EPPO data is selected on the individual PPPs
- The xml-files for PPPAMS accordingly to the XSD-scheme have not yet been developed.



EPPO data in the national Danish database

- The imported data is depicted in the imported tree structure given by EPPO (Parent/child relations).
- The users of the application can search for a specific code using EPPO code, scientific name or Danish name if this is added in the EPPO global database.

The screenshot shows the user interface of the Danish environmental database. At the top left is the logo of the Ministry of the Environment and Food (Miljø- og Fødevareministeriet) and the Environmental Protection Agency (Miljøstyrelsen). To the right are navigation links: 'Opret', 'Søg', and 'Rapporter'. A breadcrumb trail indicates the current location: 'Du er her: Forside > Søgninger > Afgrøder & skadevoldere'. The main heading is 'Afgrøder & skadevoldere'. Below this is a search bar with a dropdown menu for 'Eppokode' and a 'Søg' button. The main content area displays a tree structure of taxonomic groups:

- Plantae (1PLAK, Plant taxonomic group)
- Bryophyta (1BRYP, Plant taxonomic group)
- Sphagnopsida (1SHGC, Plant taxonomic group)
- Andraeaeopsida (1ADWC, Plant taxonomic group)
- Bryopsida (1BRYC, Plant taxonomic group)

EPPO data in the national Danish database

- EPPO data registration on Danish PPP's registration is ongoing
- We register one to many pest per crop.
- Our application suggest EPPO-codes via "type ahead"
- We are planning a functionality to copy pests from one crop to the next.

The screenshot displays the 'Opret EPPO anvendelse' (Create EPPO application) form. The form is divided into three sections, one for each crop type:

- PIUMU bjergfyr:** Lists pests with EPPO codes: SINAR (ager-sennep), SONAR (ager-svinemælk), CIRAR (ager-tidsel), EQUAR (ager-padderok), and DECFL (bølget bunke).
- FAUSY bøg:** Lists pests with EPPO codes: SINAR (ager-sennep), SONAR (ager-svinemælk), CIRAR (ager-tidsel), EQUAR (ager-padderok), and DECFL (bølget bunke).
- LIGVU liguster:** Lists pests with EPPO codes: SINAR (ager-sennep), SONAR (ager-svinemælk), CIRAR (ager-tidsel), EQUAR (ager-padderok), DECFL (bølget bunke), and STEME (almindelig fuglegræs).

At the bottom of the form, there is a 'Tilføj ny række' (Add new row) button and 'OK' and 'Annuller' (Cancel) buttons.



technical description SQL dump and logshipping

- October 9th 2017: first database incorporated through a SQL dump
- Structure from SQL (ID is primary key)
- Data is downloaded into National database
 - Data is available even if EPPO is offline.
 - Data is always updated but we have the history of the changes and registrations.
- Updates from logshipping (codes are the primary key)
- Internal control of the ID's Ids should be in consecutive order, otherwise the transferal will stop.
 - *Logshipping error in december:*
 - `<action logid="225716" table="NAMES" type="U" date="2017-12-19 10:38"> <key name="idname" type="int">329922</key> <field name="preferred" type="bool">>false</field> </action>`



Problems with data quality / difficulties with the integration

- So many options of integrations
- Differences between the logshipping and the SQL dump.
- Data is presented in linked tables, Links can be altered or deleted.
- EPPO codes are not related.
- No structure on what is primary key
- RestAPI appears to contain different data than the SQL
- EPPO global needs to insure the data quality and support of the data.

Downloads

Date	File	Size		
2018-02-28 03:30:20	XML Access	12,14M	download	read more
2018-02-28 03:31:08	XML Full	8,70M	download	read more
2018-02-28 03:30:37	XML Datapacket	11,41M	download	read more
2018-02-28 03:31:32	Bayer (flat file)	8,95M	download	read more
2018-02-28 03:31:57	SQLite database	10,95M	download	in preparation
2018-02-28 03:31:47	SQL queries	9,39M	download	in preparation
2018-02-28 03:00:30	LogShipping method	23,00M	download	read more

Tokens API [+ Ask for a new token](#)

Token API	Description		
32fa2ac238ceb7cb3d0342afc10a38e5	Token for documentation tests and online tools		
44ee5e70065bdf392e9e6e2edd0acf8	LogShipping	modify	delete
d437f206e0da93d1aad85b076a5cce5c	LogShipping Probe	modify	delete



The future with EPPO registrations at DEPA an EU – commodity groups

The new PPP-codes solve some problems and create some new issues:

- By using commodity groups and unclassified codes the gain of the EPPO structure is lost.
- 2FRUIT is PYUCO but PYUCO is not 2FRUIT – you can't find PYUCO from 2FRUIT
- MS that already have developed systems need to change their systems to incorporate the new codes.

Uses of PPPs (in prep.)

- Non-crop object
- Crop groups
- Crop destination
- Crop location
- Treatment
- Target
- Qualifiers

Other useful groups

- Commodity group
- Unclassified



The future with EPPO registrations at DEPA an EU – commodity groups

MS needs to insure uniform registrations throughout the EU

- How to registre the use of a PPP where one or more EPPO codes are missing?
- PPPAMS needs to include MS in requirements for registrations

MS and EPPO global needs to insure that the dataset gets as complete as possible

PPP general issue: Harmonization is needed with the crop codes used for MRL



Thank you for your attention!

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