Advices for proper use of AGRIBALYSE® results

Short note for AGRIBALYSE® LCI datasets users.

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Document to include with the results

1. Why this note ?

This short note is addressed to all AGRIBALYSE® users, in order to help them to make a proper use of the data. It is still necessary to refer to the reports "Methodological report" and "Assessment and lessons for the future" to fully understand the calculation steps and choices as well as the program goals and limits.

2. Introduction

AGRIBALYSE® Database contains 137 Life Cycle inventories (LCI) datasets, corresponding to the main French agricultural productions.

AGRIBALYSE® Database had two aims.

- **Provide the information necessary for environmental labeling** of food products. AGRIBALYSE® LCI data sets will be available for incorporation into the IMPACTS® public database. The final selection of the AGRIBALYSE® data sets for incorporation into the IMPACTS® database depends on the IMPACTS® database steering committee.
- **Provide standards for the agroindustry to help environmental assessments and actions to reduce environmental impacts.** The collection of methodologies selected will provide a starting point and standards for subsequent LCAs and will provide support for projects seeking to improve agricultural practices (ecodesign).

3. What kind of results and where to find them

LCI results are available in different formats and with different level of details according to users' needs. The data are public and available for free on demand or direct download. :

The database is available[1] in various formats with various levels of detail depending on the user's requirements:

- **Factsheets**: a simplified version in PDF® format with the most common and most robust indicators. The factsheets are freely available (but only in French) and do not require any specific LCA software.
- **The AGRIBALYSE_vIMPACTS** database (system processes, ILCD and Ecospold_V1 format): containing aggregated LCI data sets considered by the AGRIBALYSE® consortium to be sufficiently reliable to be used for a product environmental labeling approach (robustness, representativeness, etc). These LCI data sets are available for incorporation into the ADEME

[1] www.ademe.fr/agribalyse

IMPACTS® database, the official environmental labeling database. An LCA program is required to analyze this data.

- **The AGRIBALYSE_vcomplete** database (unit processes, Ecospold_V1 format). This is intended primarily for ecodesign projects and provides the results in disaggregated format. An LCA program is required to analyze this data.

ILCD and ecospold formats are suitable for LCA specialists as the data can be used in current LCA software. A good knowledge of the LCA methodology is required for using and interpreting the LCA data. The databases can be obtained from ADEME after agreeing to license conditions[2]. The intention is that the AGRIBALYSE® results will be integrated into the ADEME IMPACTS® and Carbone® databases. The AGRIBALYSE® results are also complementary to the ACYVIA program which was set up to provide LCI data sets for food industry processing processes.

A “Methodological report” and a report « Assessment and lessons for the future» are attached to these datasets.

Deliverables	Access
Summary sheets	Download on ADEME website
AGRIBALYSE_IMPACTS DBB (ILCD et Ecospold_V1)	Available on demand to ADEME
AGRIBALYSE _complete DBB (Ecospold_V1)	Available on demand to ADEME
Documents: “Methodological report” and “Assessment and lessons for the future” report	Download on ADEME website

4. Data use

For a proper use and interpretation of LCA results, it is important to understand the theoretical background of this method (concepts of scope, allocation, potential impact, impact assessment, mid-point/end-point indicators etc.). The interpretation of some indicators is not self-explaining especially for agriculture (e.g. toxicity impacts). Users can refer to many publications describing the conceptual background of LCA method in general or with special focus on agriculture[3].

[2] www.ademe.fr/agribalyse

3 O. Jolliet, M. Saadé, P. Crettaz, S.Shaked 2010. Analyse du cycle de vie: comprendre et réaliser un écobilan. Vol. 23. PPUR presses polytechniques, 2010.

European Commission. "International Reference Life Cycle Data System (ILCD) Handbook—general guide for life cycle assessment—detailed guidance." Joint Research Centre—Institute for Environment and Sustainability. Publications Office of the European Union, Luxembourg (2010).

4.1. Representativeness

Some LCI datasets are considered well representative for the average french product in 2013 (e.g.: durum wheat), whereas others only correspond to a specific production system (e.g. tomatoes produced in heated greenhouse) and cannot be considered as representing the average French product. In some cases, le average French product could be obtained by aggregating several LCI datasets, each corresponding to a specific production system (e.g. French fresh tomato = cold greenhouse tomato + heated greenhouse tomato+ open field tomato). Thus, it is always necessary to consider the representativeness of LCI data provided when using them, and it is always recommended to evaluate if the production system studied corresponds sufficiently to the dataset provided.

4.2. Interpreting results and indicators reliability

It is necessary to understand the LCI data collection and calculation methods for interpreting the results. For instance, using national average statistic data can lead to include a very large number of active molecules, such as pesticides in the LCI of some food products. This does not mean that all of the pesticides are used in each field, but that all these molecules are used in the French territory. It is also important to consider the evolution on agronomic practices and legislations. Some inputs, especially phytosanitary products that were used in 2005-2009 years are not used anymore.
More generally, users should keep in mind that LCA provides potential impacts indicators, and that some of them are considered as strongly reliable (ex: Greenhouse gases, or energy consumption indicators) whereas others hold larger uncertainties and must be analyzed cautiously (ex : toxicity impacts).

5. Updating and corrections

AGRIBALYSE® results are available since October 2013. Despite our vigilance and efforts to provide high quality results, our experience shows that our results might still contains some mistakes. Thus, if you identify some anomalies, please inform us a agribalyse@ademe.fr. If you have any question regarding AGRIBALYSE® after reading the documents, please contact us we will be glad to answer.

Please also note that the database is likely to evolve, be updated or enlarged. An appropriate communication will be implemented to let the users know.

6. Responsabilities

The databases AGRIBALYSE_IMPACTS and AGRIBALYSE_complete will be provided by ADEME following signature of a user license. The license is available on ademe website: www.ademe.fr/agribalyse.