

« Réseau PRO »: Establishing a method for the referencing of organic residues recycled in agriculture in a database

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Introduction

In 2011, the Réseau PRO network carried out a survey to inventory the French field experiments studying the agronomic value and the environmental and sanitary putative impacts of organic residues (OR) recycled in agriculture [1]. 437 fields experiments were registered.

- terminologies to name or describe the studied OR were heterogeneous
- available information on the OR description varied a lot depending on the trial
- to identify and compare the OR studied in field experiments was difficult. Thus, a referencing methodology has been developed to describe and classify the registered OR (Excel file).

Purpose of the method for the OR referencing

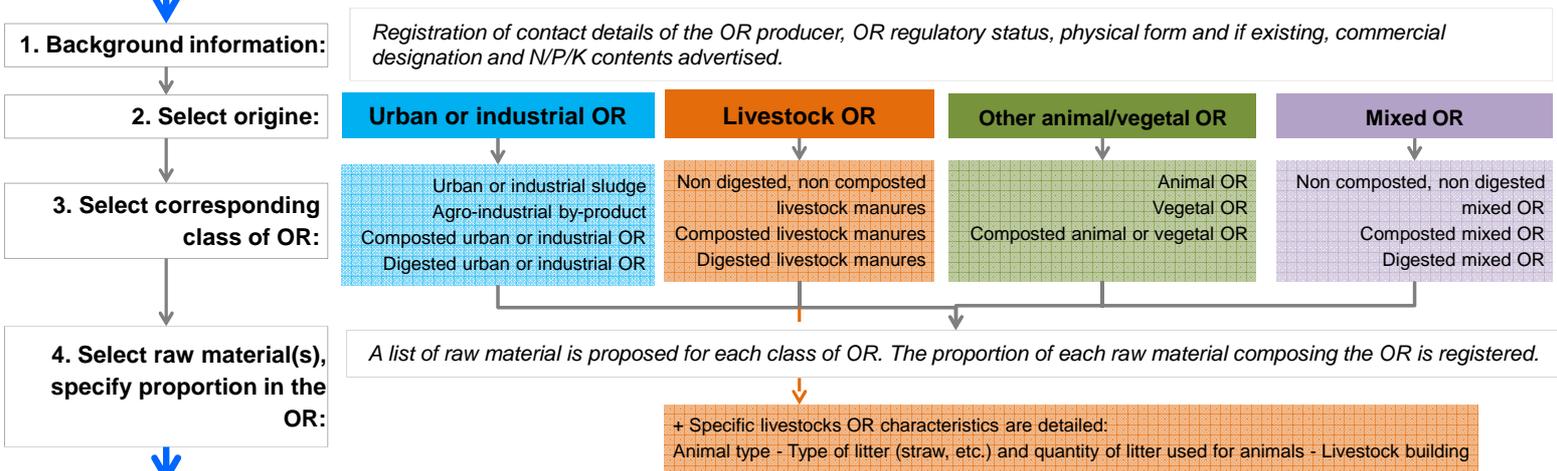
- to homogenize the OR terminologies and to organize the OR into a unique classification at a national scale (classes, sub-classes)
- to ensure an OR characterization as detailed as possible (composition, treatment, etc.)
- to connect the OR description and analytical data stored in the same databases

OR description and characterisation methodology

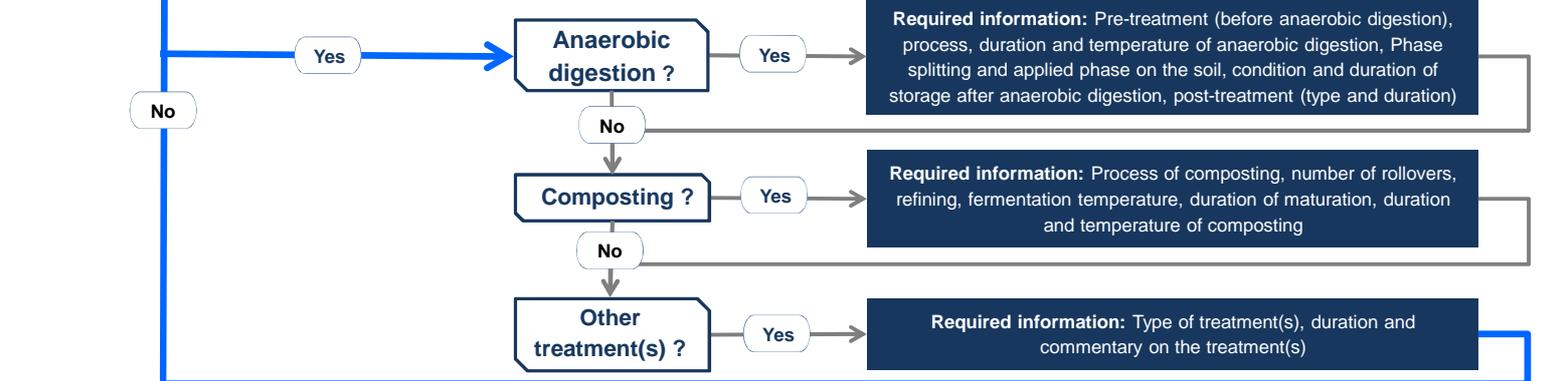
Criteria used to describe the OR were defined according to their putative impacts on the agrosystem. The method consists into 3 steps, organized into hierarchy and interdependent:

- 1) Background information and description of the OR: origin of the organic component(s), class of the OR, etc.
- 2) Treatment(s): type of treatment, duration and other characteristics treatment-related;
- 3) Storage: conditions and duration of the storage before the spreading of the organic residue.

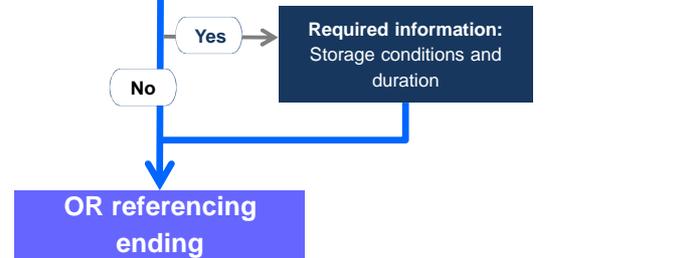
STEP I: Description



STEP II. Treatment(s) performed?



STEP III. Storage post-treatment / before spreading ?



Conclusion and perspectives

- The presented methodology is well adapted to the classification and the description of the wide diversity of OR recycled in France.
- OR are classified in an organised and homogenised classification at a national scale. Thus, it enables to compare the same types of OR studied on the different field experiments inventoried in the Réseau PRO.
- This method enables the development of a typology based on analytical data or expected field effects (C classes, N availability classes, etc.)
- This method is able to integrate future evolution concerning new OR recycled.

[1] Bell A, Michaud A, 2012. « Réseau PRO »: analyzing the French context of field experiments assessing agronomic, environmental and sanitary impacts of organic residues recycled in agriculture. Ramiran 2013.