

Data sheet



Source reduction slurry treatment

Data sheet n° 1

ACTION B2. SOURCE TREATMENTS

1. What is a source treatment?

It is a treatment into the farm as a more piece into the management plan of farm to achieved a balance between manure production and the possibilities of slurry application to soils. It is important to use adapted technologies to each situation and defining objectives to identify every zone depending of the nutrient balance, transport problems and other requirements.



2. Background

One of the main assets of Catalonia is livestock along with its associated food industry. This involves an environmental challenge that need to be addressed with strategies as an adequate water management and the use of more efficient diets, although some times they aren't enough to achieved a good source management of manure and it is necessary to incorporate treatment technologies, that will have an economic cost. The soli-liquid separator is the most commonly technology found into the farms.

3. Objectives

The final Futur Agrari objective is to demonstrate the improvement in the management of swine manure in high livestock concentration areas using solid liquid separation systems by monitoring and evaluation of the existing separation systems on farms, as well as the study of the resulting fractions starting in a first phase, knowing the currently yields of solid liquid separators according to the technology and management.

4. Location

It has been made monitoring of 9 solid-liquid separators installed into the pig farms located in Catalonia, in Osona and Segrià areas. This follow up has been made by DARP and IRTA GIRO technicians.

5. Experiment design

First phase: (begins May, 8th 2014):

-Monitoring and characterization of 9 separators of different technologies and different companies:

- A first visit to farms.
- Characterization of separation system with the current operation.
- Mass balance of quantities distributed between the solid and liquid fraction

Second phase: (during 2015-16)

- The system characterization with modified operating parameters such as the work flow , pore mesh, additives...
- Mass balance and economic balance.



6. Results

It must be made:

- Individual protocols explaining what is changed in separators.
- Individual reports with results and conclusions of different systems.
- Summary with results.
- Conclusions.
- Report with analysis of obtained fractions.

Further information at the website www.futuragrari.cat.