

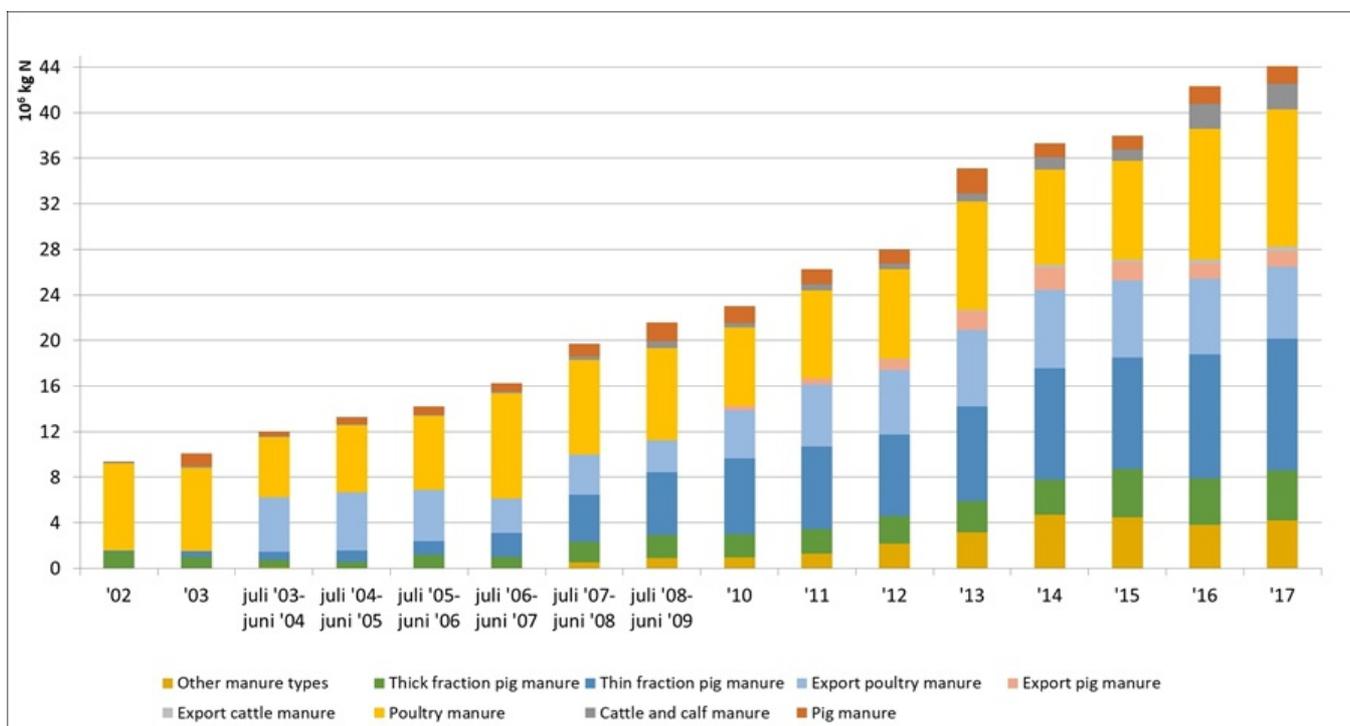


State of affairs of manure Processing in Flanders

Every year, the Flemish Coordination Centre for Manure Processing organizes an inquiry about the situation and evolution of the manure processing in Flanders. All data on 2017 can be found in the [full report](#) (only available in Dutch).

Summary results 2017

The results for 2017 show that 44,1 million kg nitrogen from animal manure was processed and/or exported. In 2015, this was 38 million kg nitrogen and in 2016 42,3 million kg nitrogen. The amount of nitrogen processed in Flanders thus increases, although the increase in 2017 was smaller than in 2016. Also the amount of phosphorous treated in Flanders keeps on increasing.



The largest part (almost 85 %) of the treated amount of nitrogen in 2017 was realized by the treatment and export of Flemish pig manure (in total 18,9 million kg N or 42,8 %) together with the treatment and export of poultry manure (in total 18,4 million kg N or 41,7 %). In 2017 is the treatment and export of pig manure and the treatment of poultry manure increased, while the export of raw poultry manure has decreased from 6,6 million kg N in 2016 to 6,3 million kg N (2017).

In 2017 is the treatment of cattle and calves manure increased (+ 2 %), although less cattle manure was imported from the Netherlands and the treatment of the thick fraction of cattle manure is decreased with 11 %. However, the export of raw cattle manure to the Netherlands (+ 11 %), the treatment of the thin fraction of cattle manure (+ 27%) and the treatment of stable manure from cattle (+ 5%) have increased strongly.

New techniques are rising

The most applied technology (98 of the 124 installations) in Flanders is the biological treatment (nitrification-denitrification) from the thin fraction of pig manure, cattle manure and/or digestate, followed by the biothermal drying (16 installations) of the thick fraction. In 2017, 4 new installations were started: two biological treatment installations for the treatment of the thin fraction and 2 biothermal drying installations, from which 1 hygienisation unit based on containers instead of concrete tunnels.

As in 2016, the largest part of treated nitrogen in 2017 was treated by means of biothermal drying (of poultry manure, horse manure and the thick fraction of pig and cattle manure), sometimes followed by further drying and granulation. A similar amount of nitrogen (13,1 million kg N or 35 %) was treated by means of the biological treatment (of pig and cattle manure and digestate), sometimes followed by further treatment of the potassium rich effluent by means of constructed wetlands. The largest amount of phosphate (11,8 million kg P₂O₅) or 66 % is treated by means of biothermal drying (sometimes followed by drying and granulation).

It can be concluded that the conventional technique of manure treatment in Flanders, the separation of the raw manure in a thin fraction, treated biologically by means of nitrification-denitrification and a thick fraction, biothermal dried in a sort of composting process and exported afterwards, is crucial for a efficient treatment of the Flemish manure surplus.

The technological development proceeds however, and in 2017 a first full-scale installation for nitrogen recuperation from the thin fraction of pig manure using stripping-scrubbing received a permit. The construction of this installation is foreseen by the end of 2018. In this installation, the ammonia nitrogen from the thin fraction is stripped into the gaseous phase and then scrubbed by means of nitric acid, resulting in ammoniumnitrate.

A detailed report (in Dutch) on the results of the inquiry on 2017 can be found [here](#).