

## TECHNOLOGY FOR N RECOVERY AS INORGANIC FERTILIZER STARTING FROM LIQUID FRACTION OF MANURE, DIGESTATE OR OTHER WASTE STREAMS WITH “DETRICON” STRIPPING AND SCRUBBING PROCESS



**Keywords:** liquid nitrogen fertilizer, ammoniumnitrate, nutrient recovery

### Key facts:

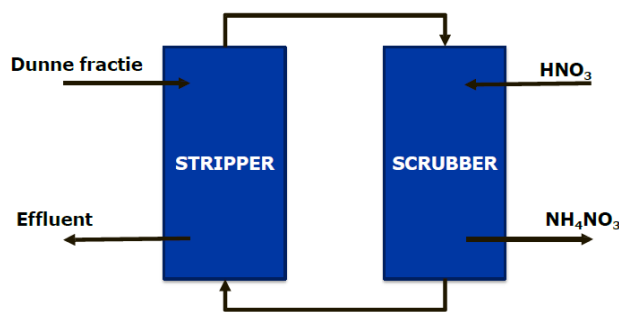
- **Category of the technology:** stripping + scrubbing
- **Input:** liquid fraction of manure, digestate or other liquid waste streams with an ammonia concentration > 0,1 m%
- **Output product(s):** inorganic fertilizer
- **Available capacity:** 100-5.000 t/y inorganic fertilizer production
- **Focusing geographical areas:** Europe
- **Technology status:** TRL 9
- **EC/MS Authority permits:** Technology is applicable for manure or digestate treatment.



### Summary of the technology

Ammonium ( $\text{NH}_4^+$ ), present in manure and digestate, is in balance with ammonia ( $\text{NH}_3$ ), which is volatile. Under the influence of pH and temperature, the ratio of ammonia to ammonium can be increased so that the ammonia nitrogen can volatilize more quickly.

By blowing in air, the volatile ammonia is removed from the liquid fraction and the nitrogen (N) can be recovered.



### Competitive position and advantages:

- Energy efficient recovery of ammonia from a liquid (water) stream
- Production of a technical pure end-product with a value in agriculture and industry

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