

EIP-AGRI practice abstract

Short title:

Ammonium sulphate from pig manure by on-farm scrubbing the air from the stables

Summary:

NH₃ emission from the pig stables is recovered by on-farm scrubbing with sulphuric acid. This process reduces the GHG emission from pig farm and contributes to a more sustainable agriculture. The resulted ammonium sulphate is a brown-colored liquid with a pH at 4,6-6,1, depending on the adjustment of the acid scrubber. The product usually contains 41 g/kg of N in the form of NH₄-N, which is supposed to be 100% directly available for plants. Due to the highly concentrated N in ammonium sulphate, compared to animal manure, lower amount is needed for agricultural application. In addition, the ammonium sulphate also contains around 100 g/L SO₄²⁻ providing 30 g/kg of sulphur (S). This allows the product to perfectly meet the nitrogen and especially sulphur requirements of crops. Therefore, this ammonium sulphate can be applied as a liquid fertiliser to substitute synthetic fertilisers.

This product is recommended to be applied at 1- 1,5 ton/ha, the correct dosage should be calculated based on soil nutrients status and the crop requirement. In order to reduce the risk of emission during application, it is recommended to apply the ammonium sulphate solution via injection or immediately incorporated into soil after surface application. The price of the product would be 10€/Ton without transport collected at the farm.

For more information: https://nutriman.net/farmer-platform/product/id_596