

EIP-AGRI practice abstract

Short title:

Liquid ammonium sulphate or ammonium nitrate from digestate or slurries stripped and scrubbed with H₂SO₄ or HNO₃ by "Circular Values" process

Summary:

Increased temperature and pH combined with acidic washing in stripping and scrubbing process allows for nearly all (85%) of the mineral nitrogen coming out from the slurry into a liquid mineral fertiliser as ammonium sulphate or ammonium nitrate liquid. This is a pure, high quality fertiliser without organic matter-content, prone to precision fertilising. The ammonium nitrate and ammonium sulphate produced through the Circular Values-technology are high quality fertilizers with 100% nutrient replacement value (NRV) - so no artificial fertilizer is needed.

The ammonium sulphate (>7% N) and ammonium nitrate (up to 18% N) are high quality fertilisers which can completely offset the need for another/artificial fertiliser. Ammonium sulphate and ammonium nitrate are good fertilizers particularly apt for alkaline soils. In the soil the ammonium ion is released and forms a small amount of acid, lowering the pH balance of the soil, while contributing essential nitrogen for plant growth. Ammonium nitrate is an important fertilizer because it contains both cation (NH₄⁺) and anion (NO₃) nitrogen. The amounts of the product to be applied and application technology depend on product characteristics, the crop needs (N and S) season and soil characteristics.

For more information: https://nutriman.net/farmer-platform/product/id_266