



EIP-AGRI practice abstract - TEMPLATE

Short title:

Technology for N recovery as ammonium sulphate by "TerraSaline S (ASL)" water extraction

Summary

TerraSaline S (ASL) is an innovative technology converting ammonia sulfate solution (ASL) to a defined granulated fertilizer product. The input material is ASL of any concentration from of any concentration, for example from digestate, manure recovery or other streams. External heat is needed (e.g. from a biogas plant or similar). It allows to produce a nitrogen fertilizer out of natural resources like digestate, manure or similar. So, the need of buying mineral fertilizer is reduced, and the system helps to close the cycle of nutrients in a region.

The TerraSaline S (ASL) consist of a humidification/dehumidification section, where the ASL is concentrated until the salt (ammonium sulphate) falls out. This wet ammonium sulphate is then dried in the drying section and can be either packed into an integrated big bag unit or transported to the optional TerraGranulator which produces a defined fertilizer corn (3 to 8 mm) of the ammonium sulphate by mixing it with lime. A big bag packaging system is also integrated in the container.

The available capacity is 3 m³/day of ASL (modular). The technology is available in a modular system to adjust to needed size on the market.

The output material is an environmentally friendly ammonium sulphate fertilizer, with 21 % N, 24 % S, optional added with lime. The product is a defined fertilizer out of undefined ASL-solutions, so the recovered nitrogen fractions can be used in a much broader and more targeted manner. The fertilizer can be easily stored in big bags or in bulk and is applicable with conventional fertilizer spreading technology. A further advantage is the reduced need of storage capacity compare to the liquid N-fertilizer.

For more information: https://nutrیمان.net/farmer-platform/technology/id_453