

EIP-AGRI practice abstract

Short title:

Technology for P recovery as PK fertilizer from the ash of poultry manure with "BMC Moerdijk" thermochemical process

BMC Moerdijk burns poultry manure to produce electricity and a valuable PK fertiliser and has proven to offer poultry farmers a reliable solution for their poultry manure all year round. Every year BMC Moerdijk incinerates about 430.000 tonnes poultry manure and produces 292.000 MWh gross and 57.000 tonnes PK fertiliser. The production process is fully operational, and the product is available since 2008.

The PK fertiliser is derived from the hydrated ash of the incinerated poultry manure. Poultry manure is obtained from poultry farms in the Netherlands meeting EU compliances for animal production. The output material is an inorganic PK fertiliser from the hydrated ash. After the process, it's a powder which could be milled and pelletized/granulated in further preparation steps if desired. The fertiliser has a neutralizing value due to the presence of hydrated burnt lime and the fertiliser contains secondary and micro-nutrients.

The main nutrients are phosphorus and potassium, with a content of 10 % P_2O_5 , 12 % K_2O and other nutrients 20 % CaO , 7 % SO_3 , 5 % MgO .

The efficacy of the product was tested in pot trails and field experiments und real farming condition.

The product has a low content of contaminants, e.g. heavy metals (Cd, As, Pb), no organic compounds and is free of pathogens. The application doses/ha is depending on the P, K-nutrient needs of the crop and the P, K-nutrient status of the soil.

For more information, https://nutriman.net/farmer-platform/technology/id_399