

**DANISH FARMERS' PREFERENCES FOR
BIO-BASED FERTILISERS
- A CHOICE EXPERIMENT**

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Abstract

Within the transition towards a “circular” economy, more farmers are searching for bio-based fertilisers, which are nutrient products based on animal manure. In Denmark, there are many collaborative agreements between farmers, and the need for manure processing is relatively low. Arable farmers typically receive the manure free of charge or for a relatively low cost (application or transport costs). With higher N-norms, Danish farmers might want to use bio-based products instead of mineral fertiliser; however, this will depend on the product and the price. The purpose of this paper is to investigate how much Danish farmers are willing to pay for bio-based fertilisers and what characteristics of bio-based fertilisers are the most important for Danish farmers to start using them. We use the stated preference technique of a Choice Experiment, where respondents are presented with a choice between two bio-based fertiliser alternatives and their current mineral fertiliser, where the alternatives are characterised by selected fertiliser attributes. Data was collected from 202 Danish farmers. The sample consisted of more arable farms than the Danish average as the focus was on farmers who receive manure. Results indicate that the farmers reveal preferences for a higher certainty in the N-content, low volume, organic carbon and hygienisation. The ideal bio-based product, which like mineral fertiliser includes organic material, typically can be sold at up to 50% of the mineral fertiliser price. The analysis shows that some farmers are unlikely to accept bio-based fertilisers unless the product has the same properties as mineral fertilisers.

Keywords: Bio-based, manure, fertiliser attributes, willingness-to-pay, choice experiment