

**Objective:** Will DIGEST-IT increase the ammonium nitrogen content and reduce the dry solid % within AD liquid digestate?

**Crop:** DIGEST-IT - Liquid Digestate

**Location:** Spilsby, Lincolnshire, UK

**Date:** November 2021 - February 2022

**Researcher:** On farm trial

**Method:** DIGEST-IT additive was applied at a rate of 20L product per 455m<sup>3</sup> of liquid digestate. Two samples were taken prior to application then taken every 2-3 weeks up to 12 weeks.

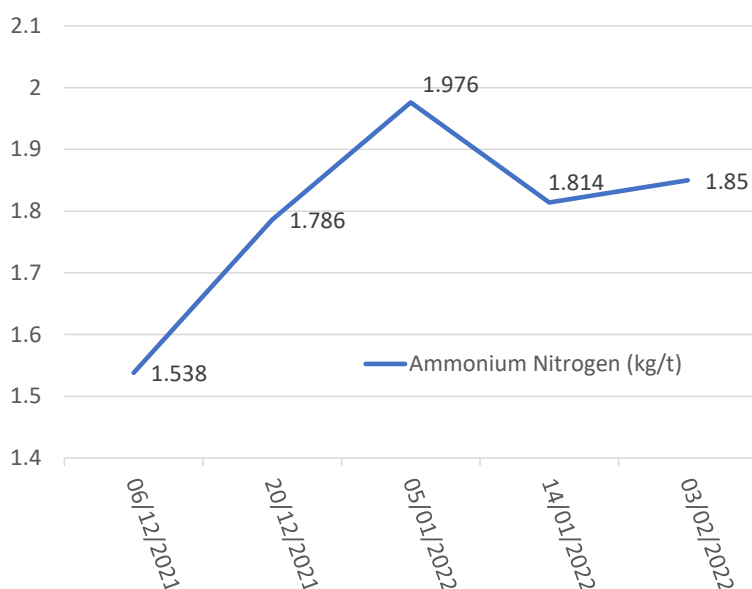
**Measurements:** Full liquid digestate analysis

DIGEST-IT has been proven by independent sources to significantly decrease ammonia emissions and increase ammonium nitrogen levels within farmyard slurry through the process of aerobic fermentation. With this in mind, this trial was setup to explore the application of DIGEST-IT within an AD system to increase the nutrient levels and the workability of liquid digestate.

## Results:

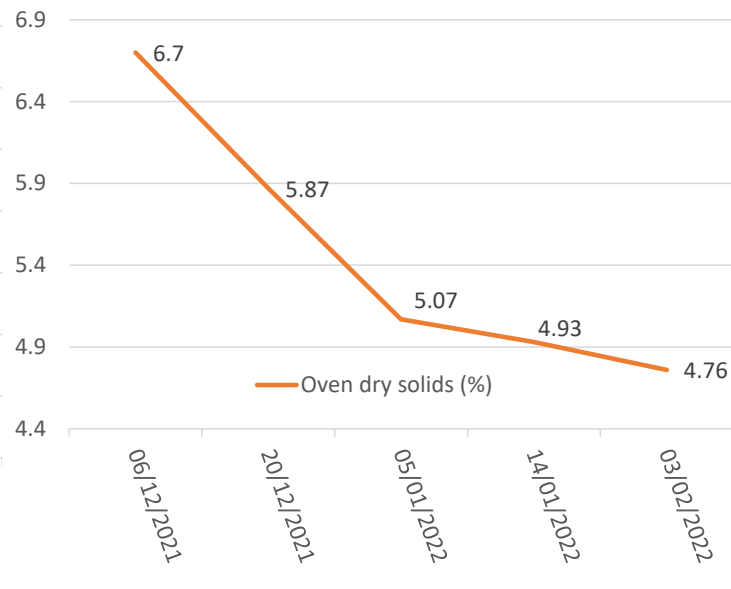
### Ammonium Nitrogen (kg/t)

**+ 20.3%**



### Oven dry solids (%)

**↓ 29%**



## Conclusions:

- ✓ 20.3% increase in ammonium N net worth £72.65/ha (Based on AN 34.5 at approx £775/t)
- ✓ Value of additional ammonium N after cost of DIGEST-IT = £36.47/ha
- ✓ Cost: benefit of DIGEST-IT = 2:1 in addition to the practical benefits below:
- ✓ 29.0% reduction in solids =
  - ✓ Easier to pump and apply = handling benefits & lower fuel costs
  - ✓ More quickly absorbed into the soil = lower risk of N losses to atmosphere