

Yields like conventional – environmentally friendly like organic

New organic fertilizer may be a game changer in organic farming.

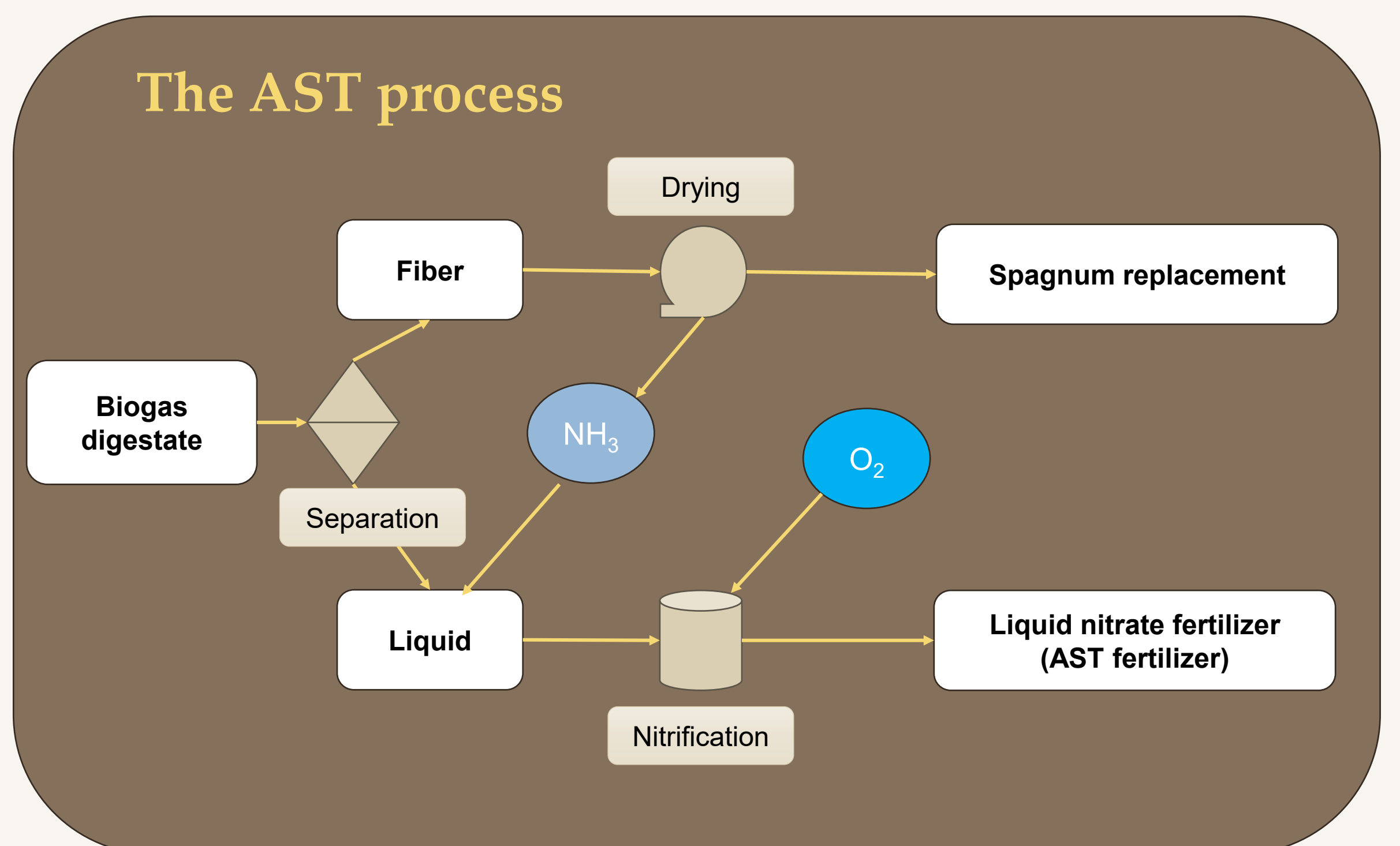
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The challenge

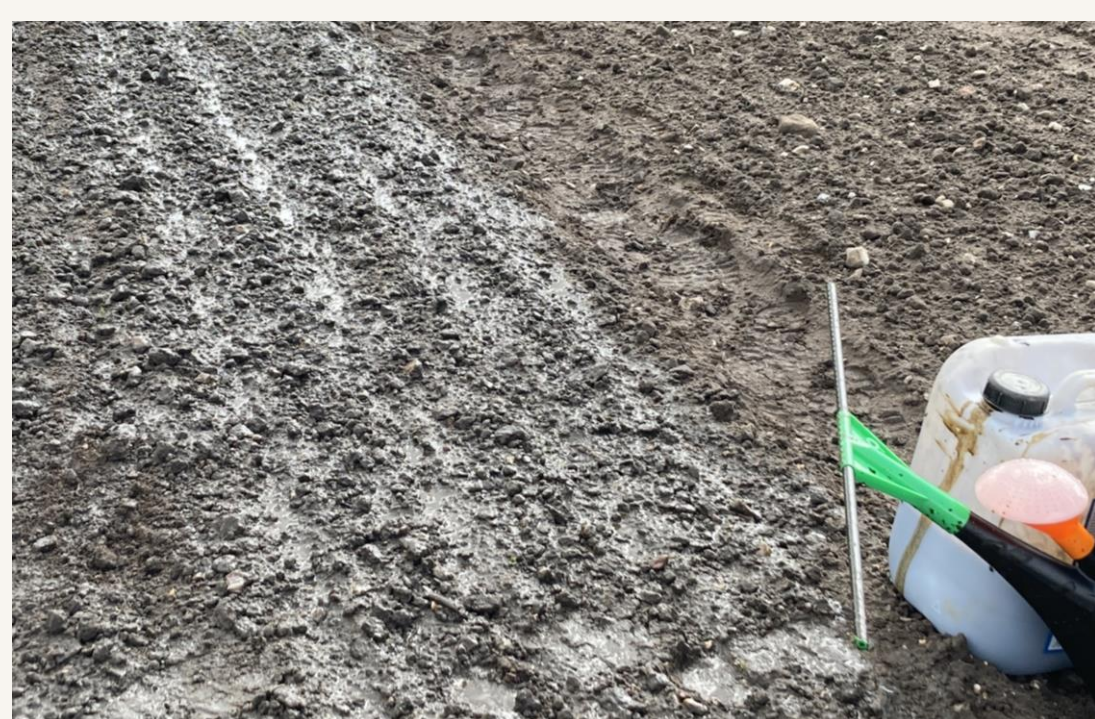
- N deficiency often causes low yields in organic farming.
- Digestate from biogas plant will be more common in the future.
- Digestate need post treatment to be an attractive fertilizer.
- The optimized and post treated fertilizer must be approved for organic farming.

The solution

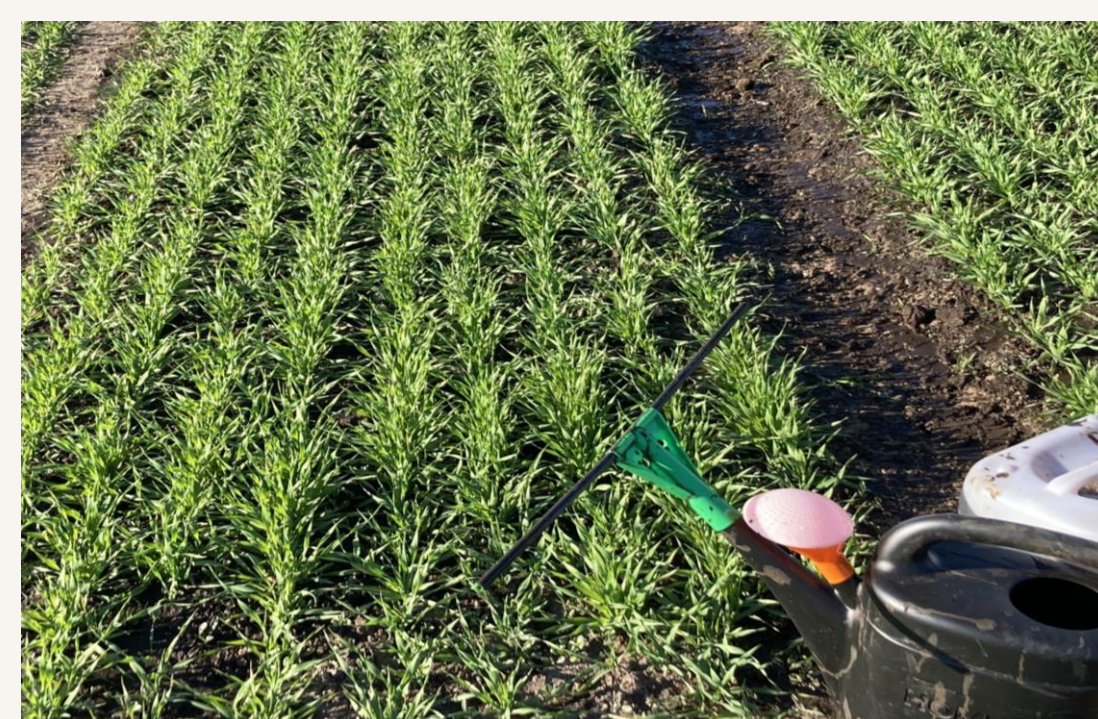


The preliminary experiences

Demo-test in spring barley



1st application April 10.
20 kg NO₃-N/ha



2nd application May 1.
20 kg NO₃-N/ha



Demo June 3.
40 kg NO₃-N/ha (57 kg N_{tot}/ha) **AST-fertilizer**

80 kg N_{tot}/ha **commercial organic fertilizer**

Vigorous growth

Less vigorous growth

Growth test in pot flowers



AST-fertilizer



Standard mineral fertilizer

Same fertilizer effect

The Opti-BioN project

- Project period: 2026 -2029
- AP1: Optimization of process technology
- AP2: Process flow and nutrient balance
- AP3: Lab test – N uptake and N losses
- AP4: Calculation of effects on climate and environment
- AP5: Field trials and organic approval of fertilizer
- AP6: Green house tests
- AP7: Economical evaluation
- AP8: Communication