

## Basic rules for the use of PIADIN

- 1) Analysis of the contents of N, P, K; at least of ammonia- nitrogen, in the slurry or the biogas residues.  
This allows the application of the right quantity of nutrients by means of the organic fertilizer. Values coming from charts are usually very unsafe.
- 2) Avoiding of ammonia losses by fertilization of slurry! To achieve an optimal effect of PIADIN, you should use modern technologies. The ammonia- nitrogen should enter the soil as fast as possible. (PIADIN is acting as a nitrification inhibitor in the soil)
  - a. Incorporation of slurry immediately after application (within 4 hours in Germany)
  - b. Simultaneously application and incorporation (picture 1)
  - c. Application with injection (picture 3)
  - d. Application with strip tillage (picture 4)



Picture 1:



Picture 2:



Picture 3:



Picture 4:

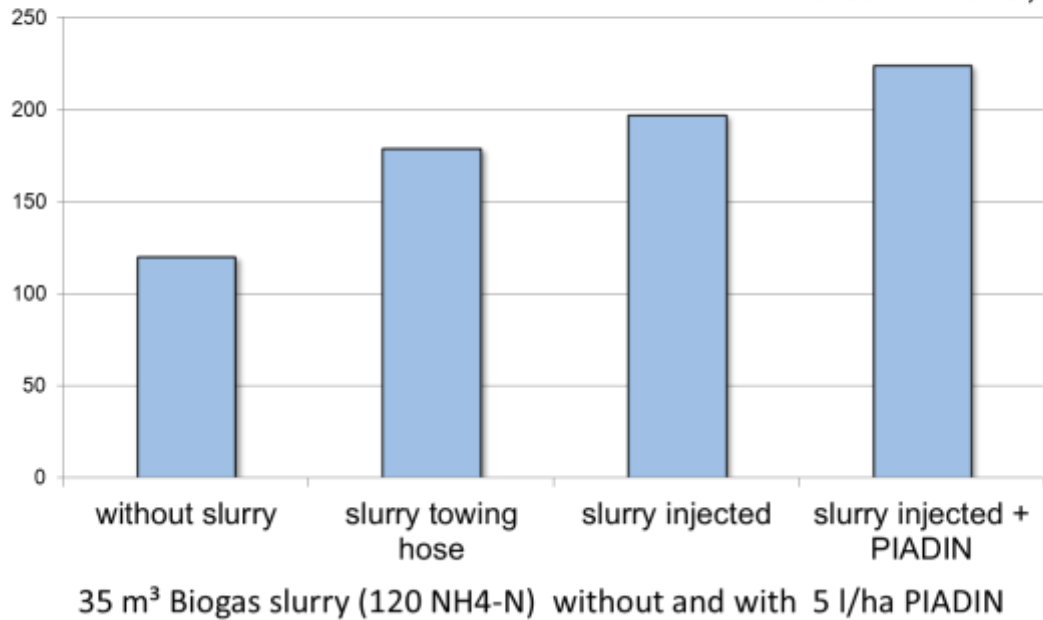
Trials of the TU-Munich in Weihestephan show higher yields by using PIADIN in application of slurry with injection (picture 1) and trials of the Chamber of Agriculture in Lower Saxony show higher yields by using the PIADIN in strip tillage technology (picture 2).

These higher yields can be achieved due to an ammonium emphasized nutrition (better formation of roots), tailor made N-supply and reduction of N-losses (N-leaching,  $N_2O$  emissions).

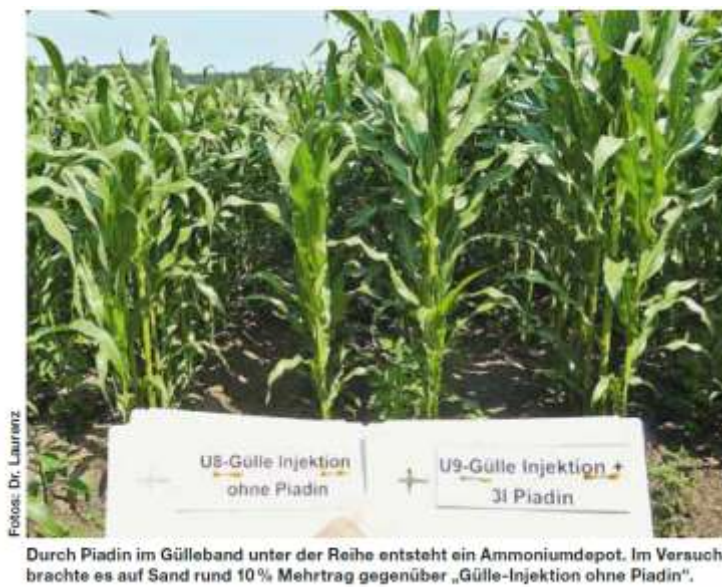
## N-removal (kg/ha N) in silage maize

Average: 3 years (2005, 2007, 2008)

source: Schmidhalter, 2011



Picture 5: N-removal in Silage maize



Picture: 6

Left side: Injection of slurry without PIADIN

Right side: Injection of slurry with PIADIN