



DMPP reduced nitrous oxide emissions but did not improve grain yield

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Principles

❖ Urease inhibitor - NBPT

- To inhibit urease activity and delay the urea hydrolysis



- To minimize the risk of N losses via NH₃ volatilization

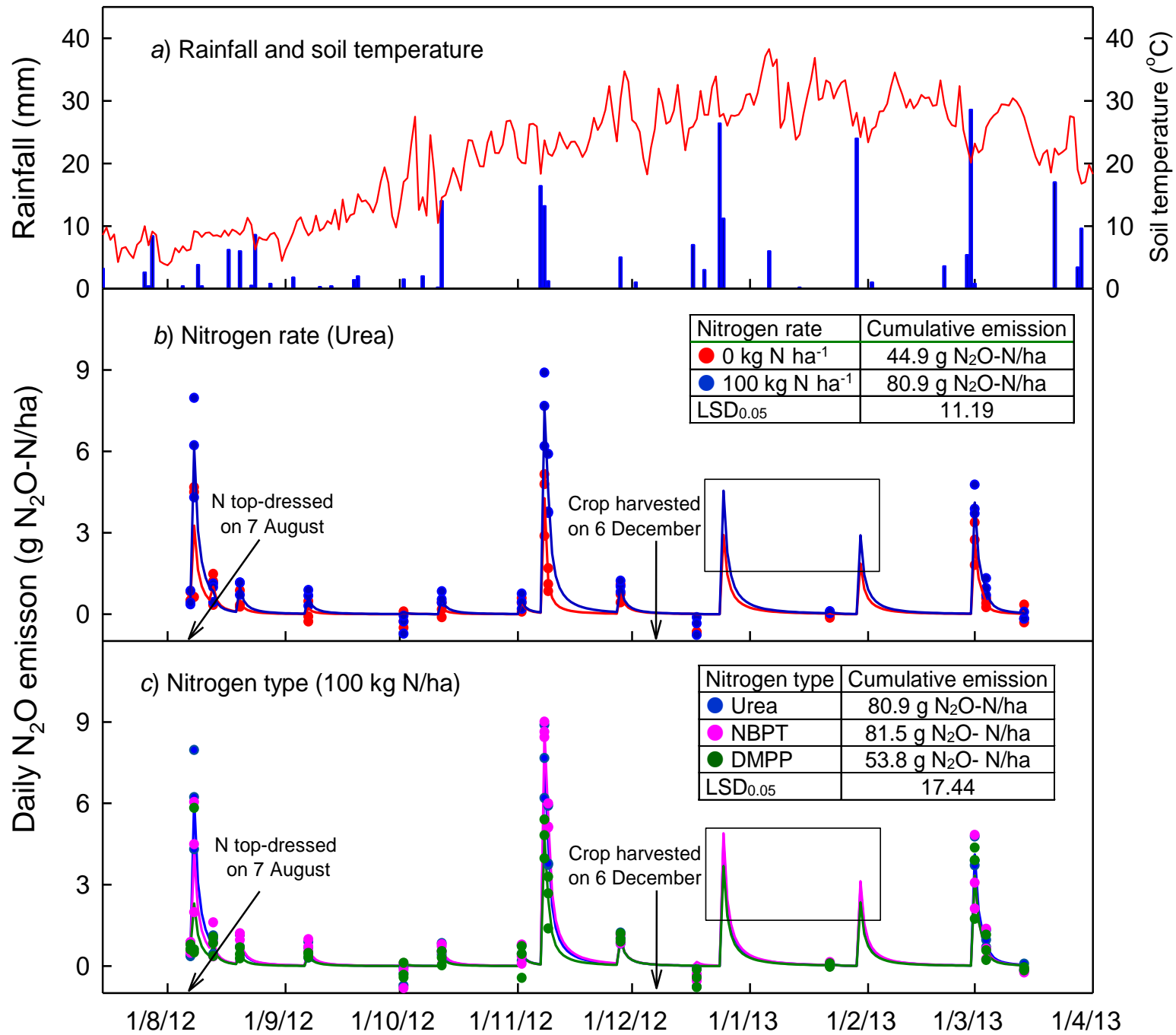
Principles

❖ Nitrification inhibitor - DMPP

- To suppress the activity of nitrifying bacteria



- To reduce the potential for N losses by denitrification or NO_3^- leaching



Conclusions

- ❖ DMPP reduced the cumulative N₂O emission by 34% for a wheat crop and 62% for a canola crop
- ❖ But NBPT had no effect on N₂O reduction for the wheat crop
- ❖ Neither DMPP nor NBPT increased crop yield
- ❖ There was no financial benefit for either DMPP or NBPT in this semi-arid environment

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