

DMPP (ENTEC)- A NEW NITRIFICATION INHIBITOR FOR IMPROVING N-EFFICIENCE

An overview

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Abstract:

DMPP (ENTEC = 3,4-dimethylpyrazole phosphite) is a new nitrification inhibitor developed by BASF SE, Germany with high favourable properties. It could be used either on solid or in liquid fertilizers, on water soluble nutrient salts or in slurry. Already application rates of 0.5 to 1.5 kg ha⁻¹ are sufficient to delay the transformation of ammonium to nitrite by *Nitrosomonas spp* for 4- 10 weeks. DMPP can significantly reduce nitrate leaching without being liable to leaching itself. DMPP clearly reduces N₂O emission, without a negative effect on the methane sorption capacity in the soil. The use of DMPP-containing fertilizers can improve fertilizer-N- efficiency. Farmers and vegetable growers benefit from its use by either reduced nitrogen rates or increased yield, by a lower number of fertilizer applications and often improved quality.