

eNtrench™

NITROGEN STABILISER

OVERVIEW

eNtrench is a nitrification inhibitor for use with nitrogen based fertilisers. Nitrification inhibitors reduce the bacterial conversion of ammonium nitrogen to nitrate nitrogen. This will retain more soil stable and usable nitrogen (ammonium) in the root zone of crops for use at key crop yield determining growth stages.

eNtrench has one use rate of 2.5 L/ha and should be applied at seeding or early post emergence for the best results.

To be effective eNtrench must be applied with the nitrogen fertiliser. The easiest application method is to mix eNtrench directly with a liquid nitrogen product such as UAN, and applied in the same manner as UAN would normally be applied by the grower. For example, in-furrow injection at seeding, soil applied through streaming nozzles, side dressed or applied through a boom sprayer.

For use with granular nitrogen fertilisers, eNtrench must be applied into the same soil zone as the granular fertiliser. Trial results show that the best method to do this is as an in-furrow application of eNtrench (mixed with flutriafol or trace elements) and banded into the same soil zone as the granular fertiliser during the seeding operation. It is not advised to mix/coat granular fertilisers with eNtrench as the resulting mix may be too wet to accurately spread.

Post-emergent applications are limited to use with liquid nitrogen products applied early post-emergent. The active ingredient in eNtrench (Nitrapyrin) works by inhibiting the activity of the soil bacteria Nitrosomonas. To be effective as a soil surface applied application, eNtrench must be incorporated into the soil by at least 12.5 mm of rain (or irrigation) within 10 days of application.

eNtrench can be tank mixed with products that are commonly added to liquid fertilisers. eNtrench is also compatible with a range of crop protection products. Consult Dow AgroSciences for a compatibility list or conduct a jar test before tank mixing.

In season visual responses to eNtrench are often subtle and hard to detect with the naked eye. eNtrench will show the biggest responses in seasons that have enough rainfall to create significant leaching events and/or soil saturation events (i.e. soils at, near or beyond field capacity).

Yield responses in trial work carried out so far around Australia in the 2011 and 2012 seasons have ranged from 0-33%, with median increases of 3-6% and protein levels have improved by greater than one percentage point. 2011 and 2012 seasons were not big years for nitrogen loss. The biggest benefit of applying eNtrench will be seen in seasons with wet winters and/or wet springs where Nitrate losses due to leaching and/or denitrification will be highest. In seasons that do not see these conditions it is possible that growers will not see any benefit from eNtrench.

eNtrench should only be used on wheat crops during 2013.

There are no grazing withholding periods required for eNtrench, however lactating dairy cows must not be fed crop material treated with eNtrench until further notice – see our website for further advice.

For further information please contact Dow AgroSciences on 1800 700 096 or visit www.nitrogenstabilisers.com.au

