We would like to thank Anonymous Referee #1 for the feedback on the manuscript.

Below find the responses to all comments and suggestions (our response is in bold italic font).

Abstract
L11 ": : :(N2O/(N2O+N2)): : :" ***This will be corrected.***

L18-20 The statement ": : :To obtain the maximum: : :fertilisers." Is surely a foregone conclusion given that you are dealing with a nitrification inhibitor that has no effect on NO3-. Delete sentence. Rather add a comment regarding why N2O emissions were high once NO3- was there i.e. C source in slurry. ***We are trying to make the point that DCD should not be applied to a nitrate containing fertiliser eg. CAN or AN, and if it is applied its value is limited. The sentence will be rephrased to emphasise this point.***

P 9170 Introduction L22 ": : :in the U.K. and: : :" L24 ": : :grassland has declined since the mid 1980s in the U.K. and Ireland by 38 and 33%, respectively. Increasing: : :" ***Punctuation will be added.***

P9171 L1 ": : :to use organic fertilisers to supply nitrogen (N) in a nutrient management plan on farms. Cattle slurry is by far: : :" ***This will be edited.***

P9172 L2 ": : :in excess of plant: : :" ***This will be edited.***

L12 Ammonium is highly soluble in water too but is not readily leached. A better phrase would be ": : :.DCD carries no ionic charge can be readily leached through the profile: : :" ***This will be changed.***

L27 ": : :reactive N to the environment, resulting from food and energy production, have been increasing: : :" ***This will be changed.***

P9173 L5 ": : :the effects of: : :" Section 2.1 How soon prior to treatment application was spraying performed. Couldn't this have provided a C supply (the decaying clover etc.). ***The sward was an intensively managed ryegrass sward and clover content was therefore low (2%). In order to prevent any confounding effect of clover the area was sprayed one month before treatment application. The % clover will be stated in the text.***

P9174 L5 Insert comma. ": : :In summary, there: : :" ***This will be changed.***

L13 Delete sentence "Sufficient: : :" it's obvious. ***This will be deleted.***

L22 ": : :determined using an Orion pH: : :directly using a capillary: : :chromatograph equipped with a flame: : :" ***This will be changed.***

P9174 L1/2 ": : :method by deploying: : :" ***This will be edited.***

P9177 L17 ": : :for N2O and N2, respectively." ***This will be edited.***

P9179 L23 ": : :ha-1 (Table 2)." L27 ": : :other time (Table 2)." ***Reference to Table 2 will be added.***

P9180 L22 No, DCD did not significantly increase the values of aD in CSNO3. Rather, the application of DCD meant the rate of decrease in aD was slower in the CSNO3.

Suggest reword accordingly***. We agree with this comment. Reword to: "When DCD was applied to CSNO3 the values of aD were significantly higher than the aD values of the $CSNO_3$ without DCD treatment on five occasions.***

L25 Same as above. DCD did not significantly increase
the values of aD in NH4ClNO3. Rather, the application of DCD meant the rate of decrease in aD was slower in the NH4ClNO3. Suggest reword accordingly. ***Reword to: "When DCD was applied to NH4ClNO3 the values of aD were significantly higher than the aD values of the $NH4ClNO3_3$ without DCD treatment on the same five occasions.***

P9183 L21 ": : :in both the CSNO3: : ***This will be edited.***

P9184 L19 ": : :was predominantly produced by: : :" delete extra use of word 'produced'. ***This will be edited.***

P9185 L13-15 Delete this sentence it states the obvious. ***Again, we are trying to make the point that DCD should not be applied to a nitrate containing fertiliser eg. CAN or AN, and if it is applied its value is limited. The sentence will be rephrased to emphasise this point.***