



CONSULTATION ON REDUCING AMMONIA FROM SOLID UREA FERTILISER

Defra Consultation

Date: 26th January 2021

The CLA is the membership organisation for owners of land, property and businesses in rural England and Wales. We help safeguard the interests of landowners, and those with an economic, social and environmental interest in rural land. Our members own or manage around half the rural land in England and Wales and more than 250 different types of businesses.

Consultation background

Ammonia is an air pollutant which is detrimental to the natural environment and human health. 87% of the UK's ammonia emissions are from agriculture, with 8% of the UK's emissions coming from the use of solid urea fertilisers. The government is under a statutory obligation under the National Emission Ceilings Regulations 2018 to reduce ammonia emissions by 8% by 2020 and by 16% by 2030 and are proposing to regulate the use and sale of solid urea fertilisers via the following options:

1. (Defra Preferred option) To ban the use or sale of solid urea fertilisers, which emit more ammonia than other fertilisers. This gives us the most amount of ammonia emission reductions
2. To require the use of urease inhibitors, which help to reduce ammonia emissions from solid urea fertilisers. This gives us less ammonia emission reductions than Option 1
3. To allow the spreading of solid urea fertilisers only between 15 January and 31 March when soils are predominantly cold, which reduces ammonia loss. This option gives us the least amount of ammonia emissions reductions.

This consultation applies to England only.

Consultation questions

The questions below are numbered as per the consultation document. Where there are multiple choice answers, the selected answer/s have been highlighted in yellow.

Questions: general urea fertilisers policy

Q1a: Should the use of liquid fertilisers (such as UAN) containing urea remain unrestricted? Yes/No/No view.

This will depend on the choices made to meet the target reductions in ammonia emissions from agriculture. The CLA is supporting an alternative voluntary approach developed by the industry which would result in a similar level of reductions, but would include some restrictions on liquid urea fertilisers. We outline the industry option in our response to question 25. Should the government pursue their preferred option 1, then we are of the view that the use of liquid fertilisers such as UAN should remain unrestricted.

Q1b: If No, why?

Q2a: Should the policy applied relate to solid compound fertilisers (as well as solid straight urea fertilisers)? Yes/No/Don't know.

Urea applied in solid compound fertiliser would be expected to have similar risks of ammonia emissions, despite lower application levels. The priority must be to achieve the ammonia reductions with the minimum impacts on industry, therefore it will depend on which option is chosen. For clarity and consistency it would make sense to include compound fertilisers that contain urea, provided inhibitors do not adversely affect the performance on the compound or add disproportionate costs to the fertilisers.

Q2b: If No, what solid compound fertilisers should/should not be restricted and why?

Left blank.

Q2c: If you agree should the policy applied relate to all compound fertilisers containing greater than 1% carbamide (ureic) nitrogen? Yes/No/Don't know.

Q2d: If you disagree what should be the threshold of carbamide nitrogen content in order for the policy to reduce ammonia emissions to be effective?

Left blank.

Q3a: Do you agree or disagree with the Impact Assessment results for each of the policy options presented? Agree/Disagree/Don't know.

Q3b: If you disagree please specify which of the results you disagree with and provide additional evidence to support your response.

We have concerns that the estimation of existing urea usage is outdated. The consultation states that solid urea 'currently accounts for 20% of all inorganic nitrogen use' (p.12). This figure is taken from the UK Informative Inventory Report (1990-2017) which itself states that 'the proportion of fertiliser N applied as urea... fluctuates annually...with 20% of total fertiliser N use being applied as urea-N in 2017.' This is problematic as the estimated impacts of options 1-2 have used the 2017 figure as a baseline, rather than a spread of years, or more recent baseline year.

The impact assessment also assumes that the banning of solid urea would initiate a wholesale switch to AN. Given the potential costs savings over time it is possible that farmers will switch to UAN, rather than AN. More information is needed to improve the certainty of the impacts.

Q4a: Would these policy options (on an England only basis) have a significant impact on the UK internal market and ensure a level playing field for users? Yes/No.

Q4b: If Yes, please indicate how.

There are many factors that affect competitiveness within the UK and with other nations. Anything that increases costs of production, or reduces options to make cost savings will have some impact. The consultation impact assessments clearly show that the changes proposed in options 1-3 will affect costs of production, and by reducing competition in the market place, could result in additional costs for all crops and livestock production, not just those who currently use urea.

Questions: Ban (option 1)

Q5a: The Impact Assessment suggests that this option provides the greatest reduction of ammonia emissions. Do you agree or disagree with this being the preferred option? Agree/Disagree/No view.

Q5b: If you disagree please explain why and what your preferred policy option would be.

Option 1 is the correct conclusion based on the 2017 urea usage data, which is used as a baseline in the impact assessment. However, given the limitations of using this baseline and the range of impacts of option 1, our preferred policy option is an industry led voluntary option, as outlined in question 25, which would give a similar impact in terms of ammonia emissions to option 1.

Q6a: Do you agree or disagree with the assumption that there will be a shift to the use of ammonium nitrate as a result of a ban? Agree/Disagree/No view.

Q6b: If you disagree, what alternatives might be used?

The banning of solid urea would lead to a shift to AN but it would also lead to some increase in UAN.

Q7a: Would storage and transportation of ammonium nitrate be a challenge to farmers and/or industry?

Yes/No. Please delete appropriately: I am a ~~farmer~~ an industry representative.

Q7b: If Yes, how? Please list the potential challenges and ways these might be mitigated.

Ammonium nitrate is explosive and its storage and handling is subject to the Control of Industrial Major Hazards Regulations 1984 and The Fertiliser Regulations 1991, as amended. Those who would increase their usage of AN, or those who would be using AN for the first time would need to ensure compliance with the regulation. They would have to address practical issues such as safe storage and may face additional storage costs. The higher volume of nitrogen in solid urea compared to AN would require an additional haulage capacity to deliver the same quantity of nitrogen.

Q7c: If you have suggested ways to mitigate potential challenges, what do you estimate the financial costs of these would be?

Left blank.

Q8: If a ban is the agreed approach, how quickly following confirmation of this do you think this option could be introduced without impacting on the availability of suitable alternative fertilisers? a. 0 to 6 months b. 7 to 12 months c. 1 to 2 years d. More than 2 years

Given the nature of the industry and the long planning cycles, a longer lead in time is preferable. Cropping decisions and fertiliser planning and purchase are increasingly made well ahead of use to ensure the best prices, and for those shifting to AN, plans will also be needed for safe storage, so a period of at least 2 years is necessary.

Q9a: Would this policy option impact any other specific sectors such as horticulture or other small-scale end-users? Yes/No/Don't know.

Q9b: If yes, please indicate who.

Q9c: If yes, please provide further details including whether alternatives can be used.

Q10a: If it is necessary to ban the use rather than the sale (and use) of solid urea fertilisers, do you agree or disagree that farmers should be required to hold and present records of fertilisers purchased, such as receipts or invoices, when required? Agree/ Disagree/ Don't know

Q10b: If you Disagree, what other enforcement options would you suggest? Please specify.

Most farmers will already keep receipts of fertilisers that have been purchased.

Q11a: Do you agree or disagree with the analysis of the environmental impacts of this measure? Agree/Disagree/No view

Q11b: Do you have evidence of environmental impacts which have not been considered? Yes/No. If yes please provide links or references.

Most farmers are aware of the risks of ammonia losses to the environment and make adjustments to their application to minimise losses – no farmer can afford the loss or the uncertainty of using urea in the way that results in losses.

Questions: Urease Inhibitors (option 2)

Q12a: Would farmers use solid urea stabilised with UI? Yes/No/No view.

Q12b: If not, why? What alternatives might farmers use?

A requirement to use inhibitors will result in a switch to AN for some due to the higher costs and some uncertainty about the nitrogen availability in different conditions. Farmers may be more willing to use inhibitors if they are only required at times when the risk of ammonia losses are highest, as proposed in the industry option outlined at question 25. This will provide the right balance of choice and impact.

Q13: At what concentrations should UI be applied to solid urea in order for there to be good efficacy? Please support your answer with evidence.

Yes/ No/ **No view**

Q14a: With regards to the efficacy of UI in solid urea when blended/coated with other minerals (e.g. sulphur), do you have further evidence that might support this consideration? Yes/No.

Q14b: If Yes, please submit your further evidence.

Q15a: As a supplier, when would sufficient volumes of treated urea be available to the UK market if there was a requirement to include UI in the melt? a. 0 to 6 months b. 7 to 12 months c. 1 to 2 years d. More than 2 years

Left blank.

Q15b: Would a requirement to include UI in the melt (as opposed to a coating) increase the price of UI treated urea? Yes/No/No view.

Q15c: If Yes, by how much?

Q16a: Would this policy option impact any other specific sectors such as horticulture or other small-scale end-users? Yes/No/Don't know. (no evidence)

Q16b: If yes, please indicate what sectors/which users.

Q16c: If yes, please provide further details including whether alternatives can be used.

Q17a: If it is necessary to ban use rather than sale (and use) of uninhibited solid urea fertilisers, should farmers be required to hold and present when required, records of fertilisers purchased, such as receipts or invoices? Yes/No/No view.

Most farmers will already keep receipts of fertilisers that have been purchased.

Q17b: Can invoices/receipts contain details of the name of the specific fertiliser product bought? Yes/No/Don't know.

Q17c: What other option(s) might be more effective for monitoring and enforcing the measure?

Left blank.

Q18a: Do you agree or disagree that UI-treated solid urea would be a better option to use than ammonium nitrate, should this policy option be chosen? Agree/Disagree.

Cannot answer- question is not clear in terms of what is meant by 'better.'

Q18b: If you Disagree, why?

Q19a: Are you aware of any evidence of negative health or other environmental impacts from use of UIs that are licensed for use in the EU or UK? Yes/No.

Q19b: If Yes, please provide evidence/references.

Questions: Restricted Period (option 3)

Q20: In your opinion, are farmers likely to apply more solid urea than needed during the open application window? Yes/No/No view.

Farmers do not wish to waste money by applying more fertiliser than is necessary for crop growth. It might be the case that more farmers start to use urea during the window, or on more crops, but only in line with the crop requirements.

Q21a: Do you think this policy aligns with Farming Rules for Water and the Code of Good Agricultural Practise in terms of nutrient management? Yes/No/Don't know.

Q21b: If No, please explain why and note any potential conflicts

A very restricted window can be problematic if the soil and weather conditions are not right at that time, and takes the control of good decisions away. For example, in the north, where grass growth starts later, it may be the best option to apply urea in early April provided conditions are still cool and damp. Every year is different.

Q22: (To farmers currently using solid urea between April and December) What fertiliser(s) might you use to substitute solid urea from April to December under this option?

Left blank.

Q23: (To fertiliser suppliers) What fertiliser(s) might be in more demand to substitute solid urea from April to December under this option?

Left blank.

Q24a: Do you have suggestions for more effective or less burdensome approaches to enforce this requirement? Please provide details here.

Left blank.

Q24b: If Yes, please provide details here.

Q25: Are there any other suggestions you would like to make that are not covered in this consultation document, or not covered by the previous questions?

An industry group has developed an alternative option that would permit the application of untreated solid urea between 15th January and 31st March. Untreated solid urea could only be purchased by a Red Tractor member or a FACTS qualified farmer. Solid urea and liquid urea (UAN) applied between 1st April and 14th January would require a urease inhibitor. This would be audited through a Red Tractor standard. Deviation from the use of an inhibitor during this period would only be allowable following specific advice from a FACTS qualified advisor or completion of an appropriate nutrient management module, which would be checked through Red Tractor.

We are of the view that a blanket ban of any product is unhelpful and is not reflective of the various environmental, agronomic, climatological and economic conditions the country's farmers and land managers operate under.

We are aware that work is underway, seeking to reduce emissions from other parts of the industry, such as slurry storage and management, so decisions on regulation of solid urea should be delayed until after the comprehensive industry information is available. The industry will need to take action to reduce ammonia emissions, but it should be based on the achieving the biggest impact for the lowest cost to the industry and the taxpayer.

Comments on consultation questions

We feel that some of the consultation questions were poorly worded and therefore it was not always clear what was being asked. Some questions required selection of permitted answers, which were not consistent or did not cover all possible options.

- The consultation questions on the online survey were numbered differently to those within the consultation document. Question 1a on the consultation document is question 6 on the online survey.
- The online survey request to select permitted answers does not allow for a nuanced response to the questions.
- The online survey was not consistent in the answers that could be selected. Some questions such as 1a, allowed respondents to answer 'yes, no or no view' whilst with other questions, the options were 'yes, no or don't know.'
- Question 2a on the consultation document does not make it clear whether the question is referring to solid compound fertilisers that contain urea or all solid compound fertilisers, which could result in variable answers.
- Question 4a asks whether policy options would have a 'significant impact' on the UK internal market, without specifying what is meant by 'significant impact.'
- The options respondents are able to choose at question 8 are not sufficiently specific, particularly option c- '1 to 2 years.'
- The binary 'yes, no' options to question 12a is closed and does not allow answers that reflect a more complex reality.
- Question 10a and 17a ask the same question, worded very slightly differently. The response options are not consistent.

- Question 18a introduces the idea that one fertiliser might be 'better' than another, without clarifying what is meant by 'better' e.g. better agronomically or better for ammonia emission reduction.

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