



French Policy
Climate and Resilience Bill



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VERDESIAN LIFE SCIENCES EUROPE LTD.



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Air Quality Pollution Episodes

Despite recurring air quality problems, pollutant emissions are decreasing. However, the limits for concentrations in ambient air of NO₂, particles (PM₁₀) and ozone are still not respected everywhere in France, especially in large urban areas and when atmospheric conditions keep from dispersing pollutants or increase their formation.

Pollution episodes regularly occur in winter and spring in terms of particles and in summer for ozone.

Due in particular to non-compliance with the concentration limit values for PM₁₀ and NO₂, the European Commission has moreover launched infringement proceedings against France and the latter has been brought before the European Court of Justice for its excessively high concentrations of NO₂ in 12 cities.

However, the inventory results show pollutant emissions falling between 1990 and 2017. In particular, the emissions of ozone precursors fell sharply between 1990 and 2017 according to the latest results for 2018:

- 59% for NO_x (including NO₂)
- 75% for NMVOC
- 74% for CO
- 20% for CH₄.
- PM₁₀ and PM_{2.5} emissions also decreased by 54% and 62% respectively over the same period.

Generally speaking, reductions in emissions of this sort are detected all over Europe.

However, excessively high concentrations of NO₂ are a problem, especially for France.

Reference - Citepa – Technical Reference Center for Air Pollution and Climate Change - Air Pollution Commitments



The Government Bill

The French government has decided to include in the Climate and Resilience Bill, resulting from the proposals of the Citizens' Climate Convention under Articles 62 and 63, provisions to reduce emissions related to nitrogen fertilisers because of their impact on both climate and air quality.

This has been set to a trajectory for the reduction of emissions from the use of nitrogen fertilisers, with a tax trigger starting in 2024 if the targets are not met.

These proposals were enriched as part of the parliamentary review of the bill. Thus, the Climate and Resilience Act adopted by Parliament:

Sets the target of reducing nitrous oxide emissions by 15% in 2030 compared to 2015 and ammonia emissions by 13% in 2030 compared to 2005;

Provides for the definition of an annual trajectory for the reduction of nitrous oxide (N₂O) and ammonia emissions from the agricultural sector until 2030. If this trajectory is not respected for two consecutive years and in the absence of a tax on mineral nitrogen fertilisers implemented at European level, the introduction of a differentiated fee on mineral nitrogen fertilisers will be considered;

Provides for the implementation of a national action plan to support the agricultural sector in reducing ammonia and nitrous oxide emissions;

Prohibits public persons from using or causing synthetic fertilisers to be used for the maintenance of spaces in their public or private domain, excluding agricultural land.



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National Low Carbon Strategy

In addition, many measures identified by the National Low Carbon Strategy to reduce emissions related to the use of nitrogen fertilisers will be implemented or strengthened, including the optimization of fertilisation by decision-making tools and the use of more efficient equipment, the valorization of organic fertilisation and closing the nitrogen cycle, the development of pulses in field crops and grasslands.



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Leading The Way In Nitrogen Loss

Verdesian is leading the way in reducing nitrogen loss into our environment and reducing ammonia release from UREA nitrogen fertilisers.



First In Market

Recently, Verdesian Life Sciences NutriSphere-N® Nitrogen Fertilizer Enhancer obtained a Marketing Authorisation (AMM) with a volatilisation claim from ANSES, the French National Agency for Food and Environment Security, making the product from Verdesian the first to earn this claim.

In addition, NutriSphere-N now has two recognised and validated claims:

- Limitation of nitrogen loss by volatilisation
- Improved nitrogen availability for the plant for use on a wide range of crops.



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A Major Regulatory Achievement

With this latest announcement, NutriSphere-N has achieved mutual recognition in Italy, and we are applying for further mutual recognition in many other European countries.

“This is a major regulatory achievement, not just for Verdesian Life Sciences, but for farmers all across the European continent,” said Kenneth Avery, CEO of Verdesian Life Sciences.

“The loss of nitrogen is a very real and very significant issue to farmers all over the world, so the ability for growers in France to have access to a product like this which reduces N losses by volatilisation means higher yields, increased crop production, and a less negative environmental impact.”



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Nutrisphere-N achieves 86% reduction in ammonia release

Research into NutriSphere-N has also shown an impressive 86% reduction in the release of ammonia over a 20-day period (May 2020) from the NutriSphere-N treated urea granule compared to the untreated urea fertiliser granule.

This research was studied on grassland as well as in a laboratory study conducted in a light and temperature-controlled chamber at University College Dublin, Ireland by Dr Mary Harty, a key researcher in emissions and efficiency of nitrogen.

Less nitrogen release as ammonia into the atmosphere means less pollution and improved nitrogen use efficiency for the growing crop.

Successful on over 29 Million Hectares

NutriSphere-N keeps more nitrogen from urea-based fertilisers available for plant uptake and to date, NutriSphere-N has been used successfully on more than 29 million hectares worldwide.

The validation of the nitrogen volatilisation claim and the marketing authorisation attained is the end-result of many years of dedicated regulatory work by the Verdesian team.

"This is a major regulatory achievement, one we do not take lightly," said Avery. "We are grateful to have achieved this recognition in this region. We are also excited to see how this helps European farmers grow more with less."



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