



clean air farming

Clean Air Farming

Reducing Ammonia and Methane Emissions from Agriculture to Improve Air Quality and Climate Protection

EU Directive 2016/2284 - State of the implementation of National Plan for the Reduction of Air Pollutants in France (PREPA) - June 30th 2020

With our European LIFE project Clean Air farming, we aim to reduce ammonia and methane emissions from agricultural activities. France Nature Environnement (FNE) together with other partners, we strive for the better implementation and improvement of respective legislation, capacity building and change of consumption patterns. The project will run from August 2018 until January 2022 and is co-financed by the LIFE program of the EU.

The implementation of national plan for the reduction of air pollutants in FRANCE (PREPA - *Plan National de Réduction des Emissions de Polluants Atmosphériques*)

Agricultural activity, important for improving air quality

Air quality is a major health issue and is responsible in France for 48,000 premature deaths per year. Its annual cost to French society has been estimated at around 100 billion euros. Agricultural activities are a source of significant air pollutants emissions caused by livestock farming (manure storage and management, animal grazing), land use (fertilization, spreading...) or the energy consumption of equipment.

In the framework of the EU Directive 2016/2284 on the reduction of air pollutants (fine particles, ammonia, etc.) published in December 2016, France has set objectives for reducing ammonia emissions by 2020, 2025 and 2030. Unlike the other European countries that have committed themselves to 2030, France has set intermediate objectives. Compared to 2005, France has thus committed to reducing its ammonia emissions - from all sources - by 4% by 2020, 8% by 2025 and 13% by 2030.

France adopted a national air pollutant emission reduction plan (PREPA) in May 2017 in order to achieve the objectives set by the NEC Directive. It is composed of a decree (including the quantified objectives provided for by the NEC directive) and an order (definition by sector of the actions to be implemented to achieve these objectives). It aims to reducing air pollution through several measures such as the definition of threshold values not to be exceeded by 2030 and 2050.

At the national level, the strategy plan for the reduction of air pollutant emissions (PREPA) makes it possible to support efforts to reduce the contributions of the agricultural sector through coherent measures between public policies related to air quality, water and climate protection. The implementation of PREPA will allow:

- to limit very strongly the excessiv of limit values in the air: these will be sharply reduced from 2020 onwards, and practically deleted by 2030. The average concentration of fine particles will decrease by about 20% by the year 2030;
- to meet emission reduction targets for 2020 and 2030. The PREPA measures are all particularly indispensable for meet reduction targets ammonia emissions

As part of the (Prepa), the decree of 10 May 2017 lays down several provisions for agriculture in order to meet the reduction targets set by Europe :

1. **The publication of a guide of good agricultural practices in December 2019**
2. **The implementation of an action plan to ensure the use of less emissive materials (spreading)**
3. **The development of alternative techniques and channels to limit burning from the 2019 season onwards.**
4. **Reinforcement of the integration and monitoring of air quality issues in the work of Ecophyto and the launch of an exploratory campaign on pesticides in the air.**
5. **The implementation and continuation of the Agr'air call for projects, endowed with €10 million over five years.**

- The publication of a guide of good agricultural practices in December 2019

In the framework of the EU Directive 2016/2284, it is specified that each Member State provides a guide of good agricultural practices to limit NH₃ emissions and particulates matters. Developed by the Ministries in charge of Agriculture and Ecological Transition and published by Ademe in december 2019, the aim of this French guide is to describe agricultural practices known to be the most relevant for reducing ammonia (NH₃) emissions. It has been published at the time of the 5th edition of the national air quality day, on September 18, 2019.

Behind this regulatory obligation towards Europe, the main objective of this guide is to promote the dissemination of known agricultural practices as being the most relevant for reducing emissions of pollutants into the air

The guide of good practices for improving air quality is based on a "win-win" strategy: it is about giving the keys to reducing ammonia emissions while providing farms with other benefits, whether economic, social or environmental, and avoiding any transfer of pollution. Developed collectively with organizations agricultural and scientific experts in the field, as well as the ministries in charge of agriculture and ecology, this guide synthesizes the main air quality action levers (at of both agricultural practices and equipment the efficient), in particular for emissions of 97% ammonia of agricultural origin. This overview also identifies potential synergies and antagonisms between different practices and issues (air-energy-climate-water) in order to optimize the evolution of the agricultural production systems.

The guide is a compendium of the main requirements of good agricultural practices, adapted to the French context and divided into 14 thematic sheets (food, building, storage, grazing,

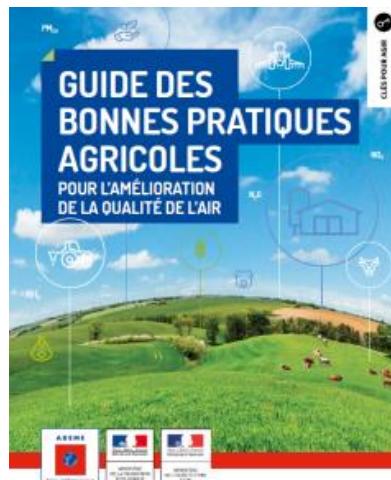
nitrogen fertilization, etc.). This guide identifies the best known techniques for improving air quality:

- in livestock farming, they target the main sectors (cattle, pigs, poultry) and the various farm operations: feeding, building, storage, treatment, spreading, grazing.
- in crop production, they mainly concern the management of nitrogen fertilisation and the methods of spreading.

The list of practices presented is not exhaustive but focuses on the main ones to promote. It is important to stress that the selected practices generate, in addition to the targeted emissions reductions, additional co-benefits at the farm level, in terms of overall input reduction and improvement the efficiency of nitrogen use.

For each practice that supports emissions of air pollutants, are presented

- data on impacts on other issues environmental, economic and social: cost/benefit of implementation practices, consequences for the climate change, water quality, soil quality, biodiversity, smells, work organisation, animal welfare.



<https://agriculture.gouv.fr/un-guide-des-bonnes-pratiques-pour-ameliorer-la-qualite-de-l-air>

2. The implementation of an action plan to ensure the use of less emissive materials (spreading) is almost done.

The PREPA provides in particular for "the implementation of an action plan to ensure the use of less emissive equipment (pendants, injectors) or the burial of effluents, within an appropriate timeframe, distinguishing between the different types of effluents and their characteristics, as well as the nature and size of farms, with a view to eliminating the use of the most emissive equipment by 2025".

21% of agricultural emissions take place at the stage of spreading organic fertilisers and 29% at the stage of spreading mineral fertilisers. Identifying and promoting best agricultural practices aimed at reducing N losses resulting from the spreading of organic and mineral fertilisers. This is an important step towards reducing pollution from agricultural sources. This is all the more important as farmers can benefit directly, on the ground, from the advantages of better nutrient use. Indeed, the efficient use of N in the field will result in greater N efficiency at the farm level. In addition, efficient nutrient recycling means that farmers are less dependent on imported fertilizers and less exposed to price fluctuations or supply problems.

The Work is on process and the first chapter will be soon published. This first chapter of the equipment plan aims to present the diagnosis of the situation: inventory of the existing spreading equipment and associated practices with regard to air quality, opportunities and constraints to the diffusion of less emissive equipment.

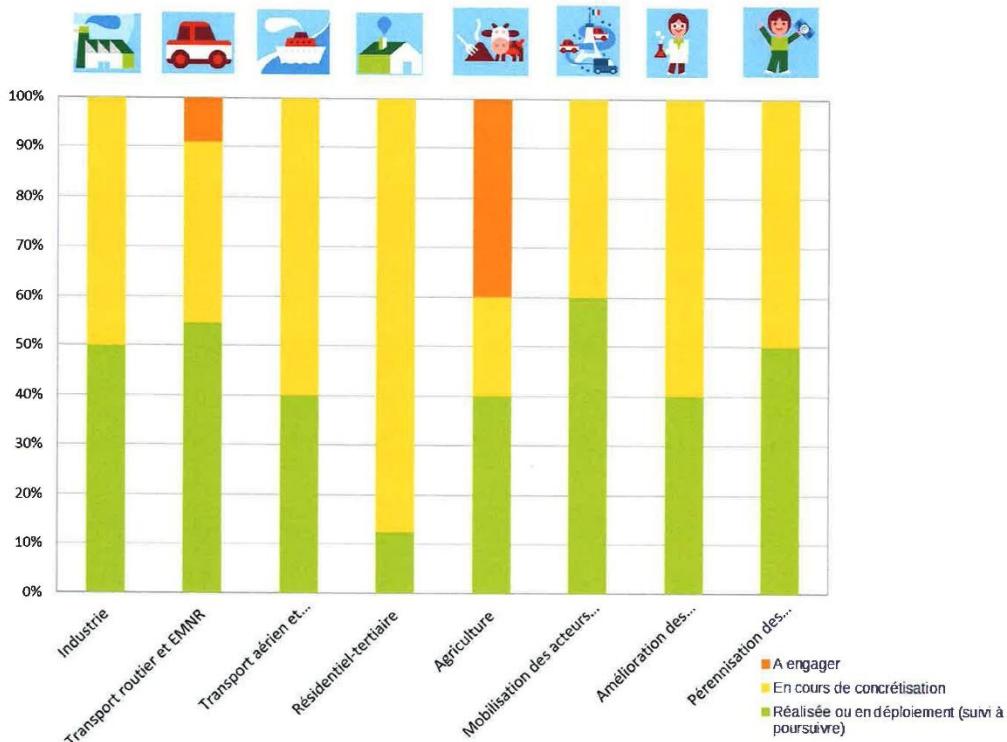
It has been drawn up on the basis of the knowledge and opinions of numerous agricultural experts. Current practices and the most effective techniques are presented below, detailing, where appropriate, their reduction potential in terms of air pollution, and the associated agronomic and economic criteria. Similarly, information on the dissemination of the above-mentioned spreading materials in metropolitan France is provided in this chapter. A total of 13 practices are identified and described.

On the basis of this shared diagnosis, a proposal for an action plan will then be drawn up.

Conclusion:

For the moment, we regret that there is no evaluation about the implementation of those measures of the PREPA.

Suivi du PREPA



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The project Clean Air Farming (Air & Agriculture) is co-financed by the LIFE programme of the European