Question for written answer E-002229/2022
to the Commission
Rule 138
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Subject: Reducing nitrogen oxide emissions to boost agricultural yields

Nitrogen oxides damage the human respiratory system and cause acid rain. According to a study led by researchers from Stanford University, published in *Science Advances*, they also reduce agricultural yields.

When they interact with ammonia or sulphur dioxide, nitrogen oxides can lead to the formation of ozone and aerosols in the lower layers of the atmosphere. These particles reflect and scatter sunlight, which inhibits photosynthesis and therefore plant growth.

According to the study, halving the amount of nitrogen oxides in the air would increase global agricultural yields by between 6% and 25%, with a 10% gain estimated for Western Europe. The reduction of nitrogen oxides in the United States between 1999 and 2019 increased maize and soybean yields by approximately 20%.

Road transport emissions (60% of all emissions) can be greatly reduced by using catalytic converters and improving engine designs. However, decreasing industrial emissions (25% of all emissions) is more difficult.

Is the Commission funding research to improve the processes for reducing or even recycling these particles?