

农业生态与环境科学

## 吉林省农业非点源氨氮污染环境评价<sup>\*</sup>

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**摘要** 引入污染物输出模型计算吉林省农业非点源氨氮排放量; 应用污染物等标排放负荷比进行农业非点源氨氮污染环境评价。研究表明, 2001年吉林省农业非点源氨氮排放量为193 821.36 t, 等标排放负荷比为82.7%, 是吉林省地表水环境最主要污染物。其中禽畜养殖氨氮排放量为107 151.50 t/a, 等标排放负荷比为56.3%, 是农业非点源氨氮的主要污染源; 其次, 种植土地氨氮排放量为54 946.49 t/a, 等标排放负荷比为27.0%; 第三, 农业人口氨氮排放量为31 723.36 t/a, 等标排放负荷比为16.7%。提出了农业非点源污染的控制措施以减轻对地表水环境的污染影响。

**关键词** [农业非点源](#); [氨氮](#); [环境影响评价](#)

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## Environmental Impact Assessment of Ammonia Nitrogen Pollution of Agricultural Non-point Sources in Jilin

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### Abstract

The pollutant export coefficient model was introduced to estimate ammonia nitrogen load of agricultural non-point source (AGNPS) in Jilin province. The ratio of isoparametric discharge pollution loading was applied to assess the environmental impact of ammonia nitrogen on the surface water bodies. The case study showed that ammonia nitrogen amount discharged through AGNPS was the most pollutant of the surface waters, whose discharged amount was 193 821.36 t and ratio accounted for 82.7 percent of the total amount discharged by AGNPS in Jilin province in 2001; While the discharged source of ammonia nitrogen through animal and poultry raising was the most source among others, whose discharged amount was 107 151.50 t and ratio accounted for 56.3 percent annually, respectively; the ammonia nitrogen amounts discharged from agricultural cultivation and the rural population were 54 946.49 t and [31 723.36 t] annually, and the ratios were 27 and 16.7 percent, respectively. The control measures were suggested to reduce the surface water pollution caused by agricultural non-point sources.

**Key words** [agricultural non-point source \(AGNPS\)](#); [ammonia nitrogen \(NH<sub>3</sub>-N\)](#); [environmental impact assessment](#)

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