



Assessment of different doses of N applied to a melon crop in the quality of groundwater: environmental impact indexes.

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Provided that the intensive use of N in agricultural systems has negatively impacted environmental quality, because a higher fertilization requirements of the crop to make the nitrate leached into the aquifer contaminating, as well as increasing their presence on the ground resulting in a time of intercropping nitrates washing with the arrival of rains. It's necessary to know the N management to reduce the pollution risks and may lead the higher production with the fewer economic cost, environmental and health.

The aim of this study was to asses how different doses of nitrogen applied to a melon crop affected the quality of groundwater. The doses of N applied ranged between 11 and 393 kg ha⁻¹. Several indexes, based in N leaching consequence of the agricultural practice, were calculated and provided an essential tool for knowing the risks of groundwater pollution with the practices used. Drinking water impact, irrigation water management impact and environmental impact indexes were obtained during four years in a vulnerable area of the centre of Spain.

Acknowledgements: This project has been supported by INIA-RTA04-111