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## Chemical fertilizers and its effect on the quality of groundwater in the Tadla irrigated plain; Morocco

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In Morocco, irrigated perimeters are threatened by diffuse nitric pollution of groundwater, which reduces the potential of water resources which are of good quality, thus creating a health risk for the population and socioeconomic developments in the country. Control of this pollution requires sufficient knowledge of the causes and mechanisms responsible for this problem. The Beni Mellal-Khénifra region suffers from the misuse of agrochemical inputs coupled with agricultural intensification and heavy pumping of groundwater, which is making water in the region of poor quality. Despite decades of efforts to reduce the release of pollutants into the environment, nutrient enrichment of aquatic environments remains an important issue, especially phosphates released into the environment, which come from agricultural sources (Fertilizers) and industrial wastes, human excreta and detergents or phosphate washed, and nitrates that turn into nitrites causing diseases that are in some cases fatal in newborns. In this context, this study has achieved to determine the effects of the use of fertilizers on the water quality of the Tadla aquifer, by carrying out various analyzes such as nitrates, nitrites and phosphates, whose results have allowed extracting polluted areas and unpolluted areas.

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