



Use of wastewater : challenge against scarcity,enhancement of crop disease and environment damage.

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Reuse of treated wastewater in agriculture is a potential alternative to face shortage in water resources mainly in arid regions. Morocco is among countries that have experienced long and severe period of drought associated with shortage in water resources. Though the large efforts deployed in providing water supplies to different regions, this resource remains sufficiently available in northern part of the country only. This situation has pushed growers to use non treated wastewater for irrigation without any environmental or health cautions.

Trials with waste water for irrigation have demonstrated net increase in production of irrigated crops, good improvement of soil texture and availability of nutrients. However interactions with pesticides remain neglected. Actually this interaction could be associated with an improvement or reduction of the efficacy of a given pesticide. On environmental point of view, it could improve or reduce adsorption, mobility of soil applied pesticides toward groundwater.

Laboratory test with a selected fungicide showed net reduction of the efficacy of the pesticide against the target fungus. Comparison between growing species in medium spiked with pesticide/ wastewater and pesticide only showed net increase of the growth in presence of wastewater.

In the column of soil, low mobility herbicide showed net increase in mobility after percolation with water spiked with wastewater under laboratory conditions.