Nitrogen Index

The effectiveness of nitrogen fertilizer in maximizing agricultural production and increasing economic returns for farmers has led to its widespread use. However, when this element is applied to a farming system, it can enter the surrounding environment via atmospheric, surface and leaching pathways. Consultants, extension agents, farmers, and other stakeholders need tools than can be used to quickly calculate the risk of nitrogen movement into the environment. The Nitrogen Index can assist users in making these assessments by integrating data on a series of management practices, weather conditions, soil characteristics and off-site factors. This tool has been tested using data from different agroecosystems across the United States, China, Mexico, Argentina, a Mediterranean region in Spain, and the Caribbean. It has performed well in comparing the effects of different management practices on nitrogen losses by distinguishing practices with high and very high risk levels from practices with medium, low and very low risk levels.

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