TECHNICAL NOTES

U.S. Department of Agriculture **Natural Resources Conservation Service**

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California Nitrogen Index 4.3.2 and 4.4

A planning tool for estimating the fate of Nitrogen in a cropping system

The California Nitrogen Index (NI) was developed from the NLEAP model by Dr. Jorge Delgado of the ARS Soil Plant Nutrient Lab in Fort Collins, Colorado using inputs on California specific needs from Robert Fry, California State Conservation Agronomist. Conservation planners should use the tool to evaluate the destination of N within a cropping system, and to compare differing N management systems for N loss and recovery potential. The NI estimates the quantity of N taken up by the crop, lost to leaching, denitrification, and volatilization, and residual in the soil profile after harvest. It considers N inputs from fertilizer, manure, compost, mineralization of soil organic matter, irrigation water, crop residue, and residual inorganic N in the soil. It also applies a monetary value to the lost and soil residual N.

The NI toggles between English and Spanish language versions, and (4.4) between English and Metric units.

Included in this Technical Note is the Nitrogen Index and supporting information.

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