

Calculating the Pounds of N in Irrigation Water

GENERAL EQUATION

*Pounds of N applied in irrigation water per ranch acre =
Nitrate-N (NO₃-N) concentration (mg/L) x acre-feet water applied x 2.72 ÷ ranch acres*

- If collecting your own well water for Nitrate analysis, be sure to stabilize the well first (run for at least 15 minutes prior to taking sample).
- If water sample results are in units of “Nitrate as Nitrate, or NO₃” use a conversion factor of 0.62 (instead of 2.72)
- If water sample results are in units of “Nitrate + Nitrite” you can assume Nitrite is negligible. Use the entire result value as Nitrate.

Example:

$$\begin{array}{r} \underline{15.2} \text{ mg/L (NO}_3\text{-N) concentration} \\ \times \\ \underline{30} \text{ acre-feet (total water applied)} \\ \times \\ 2.72 \text{ (conversion factor)} \\ \hline 1240 \text{ lbs N applied to ranch} \\ \div \\ 10 \text{ acres (ranch acres)} \\ \hline 124 \text{ lbs N applied per ranch-acre} \end{array}$$