

# Testing for Nitrates

## Financial and Technical Support



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# Testing for Nitrates – why we care



## Drinking water standard:

10 ppm (mg/L) nitrate-nitrogen ( $\text{NO}_3\text{-N}$ )

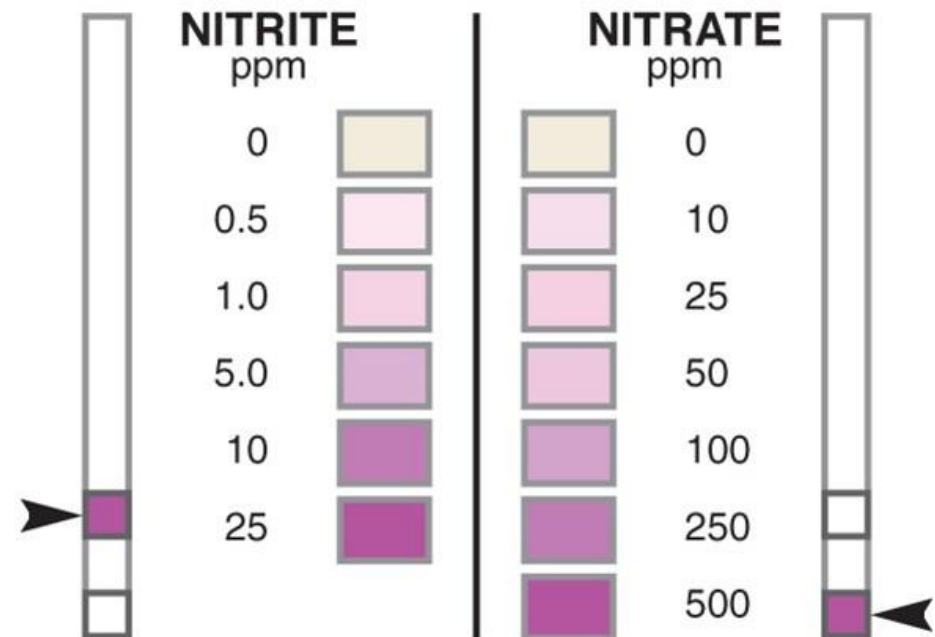
1 ppm (mg/L) nitrite-nitrogen ( $\text{NO}_2\text{-N}$ )

**Fertilizer adjustments to account  
for nitrogen already present in  
irrigation water**



# Testing for Nitrates – options

1. Various kits you can do yourself
2. Bring samples to a lab
3. Have a professional service take the sample and bring it to a lab
4. Bench-top instrument
5. Portable instrument



# Testing for Nitrates – test strips



lamotte 2996 test strip,nitrate,nitrite,pk50

from Zoro

★★★★★ 2 product reviews

Water

The Insta-TEST Nitrate / Nitrite test strips are a convenient way to quickly test water for Nitrates. Applications Drinking Water Industrial Water Boiling and Cooling Laundry ... [more »](#)

Other options ▾

**\$13.09**

+\$0.97 tax and \$5.00 shipping

Zoro

91% positive seller rating

20% off

Use Code: CYBERWK18

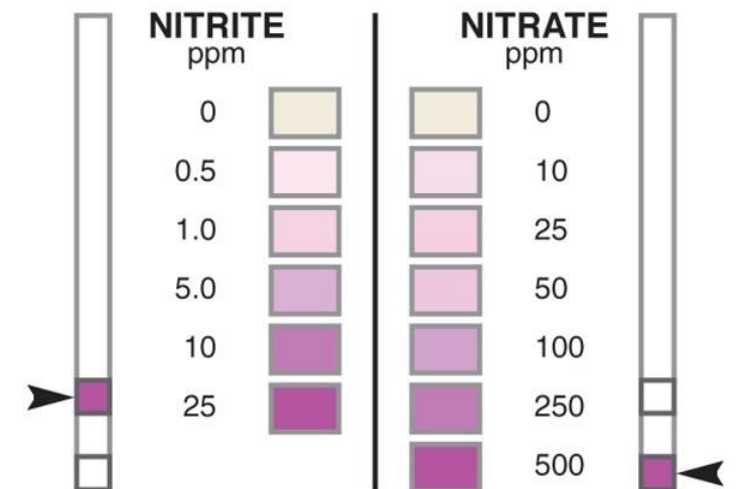
[Visit site](#)

\$14.03 [Gamut.com](#)

\$13.27 [MegaDepot](#)  
\$100 minimum order

\$16.05 [eBay - grainger](#)

[Compare prices from 10+ stores](#)



# Testing for Nitrates – colorimeters



HI3874  
Nitrate Chemical Test Kit

**\$39.00**

Qty:

☆☆☆☆☆ Write a review

In stock

FREE Shipping on orders over \$99\*

Add to Cart

The HI3874 is a chemical test kit that uses the cadmium reduction method to measure nitrate. The HI3874 is supplied complete with all of the reagents and equipment necessary to perform approximately 100 tests.

- Pre-made reagents for ease of use

## LaMotte Nitrate-Nitrogen Test Kit



from Pentair Aquatic Eco-Systems

This is the final nitrogen product formed by bacterial oxidation of ammonia. Although it is not usually considered a threat to freshwater fish, it is a plant nutrient and can ...

[See more details at Pentair Aquatic Eco-Systems »](#)

**\$58.18**

+\$4.29 tax. Free shipping  
Pentair Aquatic Eco-Systems

Visit site



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# Testing for Nitrates – pocket meters



## Horiba NO3-11C Compact Nitrate Pocket Tester, for Crops



from Cole-Parmer

Soil

Flat sensor enables easy measurement with only a few drops of sample! Simply drop the sample directly on the sensor – only 0.3 mL is needed. Whether you are determining nitrate ... [more »](#)

**\$688.00**

\$545.00 [Instrumart](#)

+\$65.36 tax and \$43.38 shipping

\$746.54 [Neobits.com](#)

[Cole-Parmer](#)

[Compare prices from 3 stores](#)

**88%** positive seller rating

[Visit site](#)

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# Testing for Nitrates – bring samples to a lab

1. Contact lab for pricing and to get bottles – they will have specific sampling protocols for you
2. With clean hands, triple rinse bottle/lid before filling with sample
3. Keep samples cool (not frozen) in a cooler, deliver to lab within 24 hours

- Dellavalle – Davis
- Nachtmann – Davis
- Kiff Analytical – Davis
- CalTest - Napa



# Testing for Nitrates – professional service

- Culligan in Fairfield (\$150)
- Dellavalle in Davis





# Testing for Nitrates – bench instruments



## Hach pH nitrate kit HQ440d Digital Nitrate Bench Meter Kit



from Cole-Parmer

Hach · Water

Designed for water quality experts, the Hach HQ440d benchtop meter is an advanced laboratory meter that takes the guesswork out of measurements. HQd meters connect with smart ... [more »](#)

**\$2,764.00**

\$2,764.00 [Davis Instruments](#)

+\$262.58 tax and \$69.89 shipping

\$2,685.00 [Careforde Safety & Scientific](#)

[Cole-Parmer](#)

[Compare prices from 3 stores](#)

**88%** positive seller rating

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# Testing for Nitrates – portable instruments



exo<sup>1</sup>

## EXO1 Multiparameter Sonde

4-port Multiparameter Water Quality Sonde

[Request Pricing details](#)

[compare](#)



exo<sup>2</sup>

## EXO2 Multiparameter Sonde

7-Port Multiparameter Water Quality Sonde

[Request Pricing details](#)

[compare](#)



exo<sup>2s</sup>

## EXO2s Customized Multiparameter Sonde

EXO2 Batteryless Conversion Service

[Request Pricing details](#)



exo<sup>3</sup>

## EXO3 Multiparameter Sonde

5-port Multiparameter Water Quality Sonde

[Request Pricing details](#)

[compare](#)



exo  
GO

## EXO GO

Monitoring Made Mobile

[Request Pricing details](#)



## EXO Handheld Display

Enhanced interface for the EXO platform.

[Request Pricing details](#)



## 6920 V2-2 Multi-Parameter Water Quality Sonde

Compact Sonde for Unattended Monitoring

[Request Pricing](#)



## 600OMS V2 Optical Monitoring Sonde

Low-Cost Environmental Monitoring Sonde

[Request Pricing details](#)

[Start Chat](#)



# Financial Assistance options

## BMPs of interest for nitrogen management:

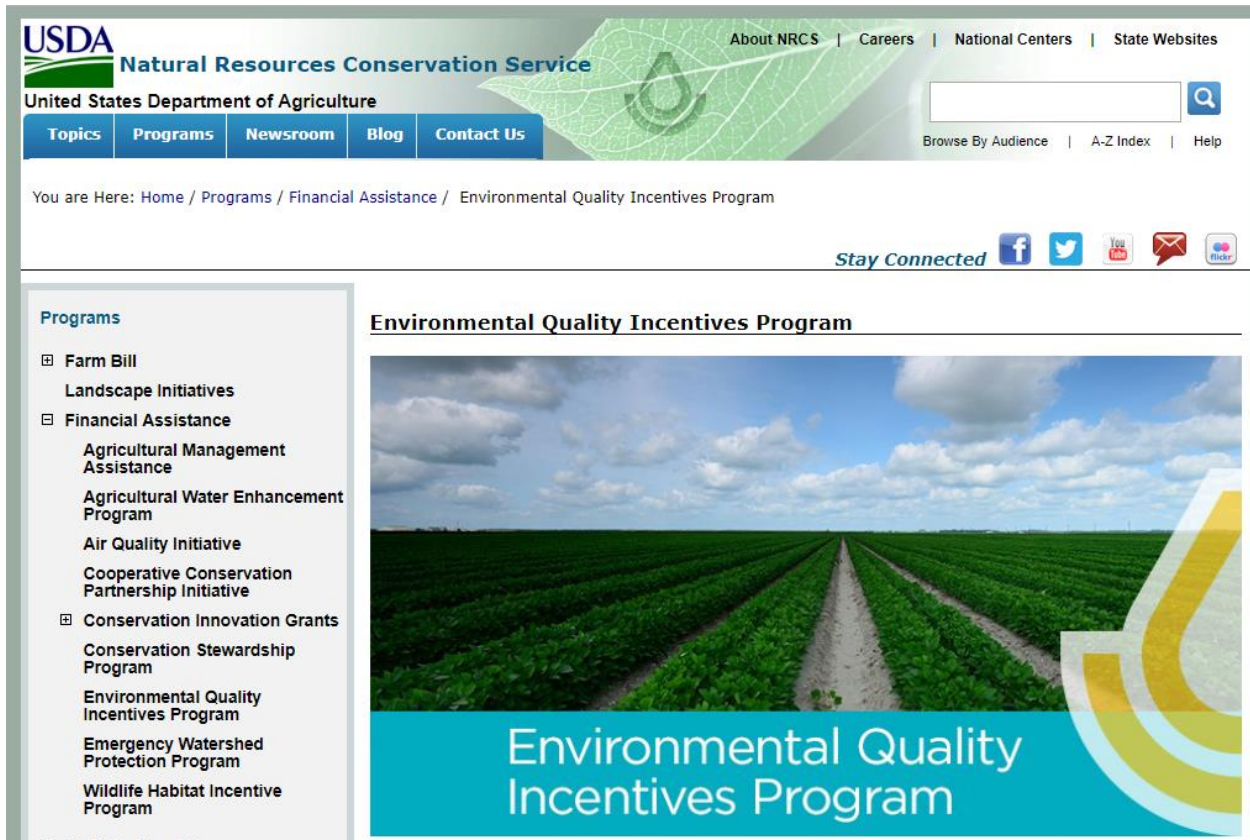
- Cover crops
- Compost or biosolids application
- Vegetated buffers or swales
- Conversion to drip irrigation
- Soil moisture monitoring

## Other BMPs:

- Mulching
- Reduced tillage
- Hedgerows
- Silvopasture



# USDA-NRCS ENVIRONMENTAL QUALITY INCENTIVES PROGRAM (EQIP)



- Rolling applications with several batching periods/year
- 50% cost share
- Detailed design, planning, engineering assistance
- Project generally 5 years

## Typical projects

- Irrigation efficiency, scheduling, etc.
- Micro or drip irrigation
- Tractor replacement
- Soil management (cover crops, compost, tillage reduction)
- Vegetation establishment (grassed waterways, riparian buffers, hedgerows)

# CDFA SWEEP



## Typical projects

- Soil moisture sensors for irrigation scheduling
- Micro or drip irrigation
- Fuel conversion for pumps
- Pumps: fuel conversion, improved energy efficiency, variable speed drive, low pressure

- Cannot apply NRCS-EQIP at the same time
- Requesting proposals Nov 2018
- Max award = \$100,000
- Max duration = 18 months, beginning June 1 2019
- Must be on a new APN, only one application/operation/year
- Significant calculations required – we can help with that

# CDEFA HEALTHY SOILS



## INCENTIVES PROGRAM

- Growers apply (we can help!)

## DEMONSTRATION PROJECTS

- Third party (RCD, CAFF, etc.) applies

These **can** be applied to the same APN as an EQIP project

# CDFA HEALTHY SOILS INCENTIVES PROGRAM



- Requesting proposals Nov 2018
- Proposals due 8 weeks later (Jan 2019)
- Max award = \$75,000
- Max duration = 3 years, beginning July 1 2019
- Significant calculations required – we can help with that
- Must be on a new APN, only one application/operation/year

## Practices they fund:

- Compost/biosolids application
- Cover crops
- Crop rotation
- Mulching
- Fertilizer reduction
- Reduced tillage
- Strip cropping
- Buffer strips
- Riparian vegetation
- Hedgerows
- Grassed waterways
- Prescribed grazing
- Range planting
- Silvopasture

# CDFA HEALTHY SOILS DEMONSTRATION PROJECTS



## Type A

- Must measure/monitor actual GHG emissions
- Max award = \$250,000

## Type B

- No GHG monitoring required
- Max award = \$100,000
- Requesting proposals Nov 2018
- Proposals due 8 weeks later (Jan 2019)
- Max duration = 3 years, beginning July 1 2019



# QUESTIONS?



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