

Deltares Aquality app

Identify nutrient levels
in water and soil

*Get valuable insights and
make informed decisions*

Nitrate

Soil Nmin

Salinity

Ammonium

Phosphate

Deltares

Download the app



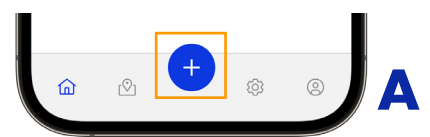
NITRATE MEASUREMENTS

You'll need:

- 📍 Deltares Aquality app installed on your smartphone
- 📍 Nitrate test strips – we recommended [Hach nitrate strips](#)
- 📍 Deltares reference card

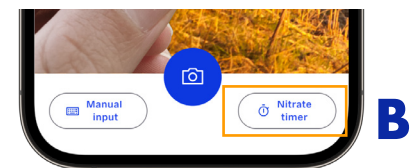
1 Take a water sample.

2 Open the Aquality app and press the big blue button to go to the camera screen (Fig. A).



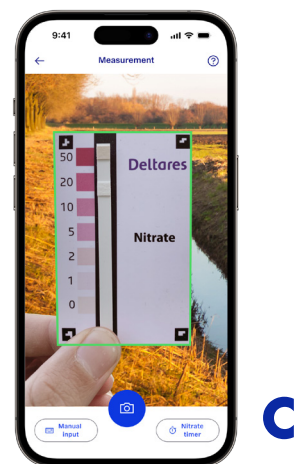
3 Dip the nitrate test strip in your water sample.

Tip: Make sure the two square pads on the strip are submerged. Don't shake the test strip.



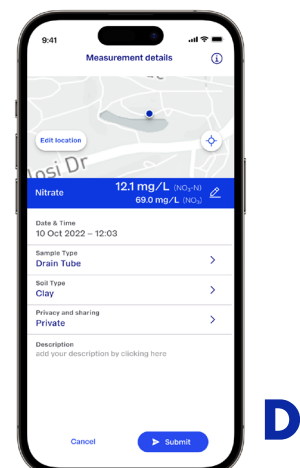
4 Quickly tap on "Nitrate timer" (Fig. B) on the camera screen. Wait for 60 seconds.

5 After 60 seconds, place the strip on the black line on the reference card. Tap on the camera button to take a picture of the test strip (Fig. C). Alternatively, tap "Manual input" to add the measurement manually.



Tip: Make sure there is good, even lighting and the camera is straight when taking the picture.

6 Finally, check your measurement details and tap "Submit" to upload it (Fig. D).



SOIL (Nmin) MEASUREMENTS

You'll need:

- Deltares Aquality app on your phone
- Nitrate test strips, e.g. [Hach nitrate strips](#)
- Deltares reference card
- Nitrate-free water
- Kitchen scale
- Non-recycled toilet paper
- 450ml standard [Dopper](#) bottle

1 Take a soil sample.

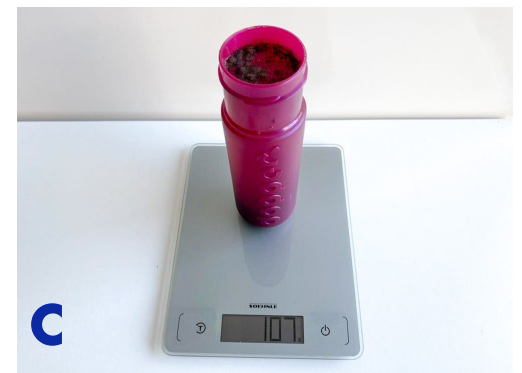


2 Add 340ml of nitrate-free water to the main body of the Dopper bottle (Fig. A).



3 Place the bottle on the scale and set it to zero. Add your soil sample until it reaches the top of the screw thread (Fig. B).

4 Write down the weight of the added soil (Fig. C).



5 Close the bottle and shake firmly for 1 minute.

6 Stick a folded piece of toilet paper 0.5cm into the sample to extract clear water (Fig. D).



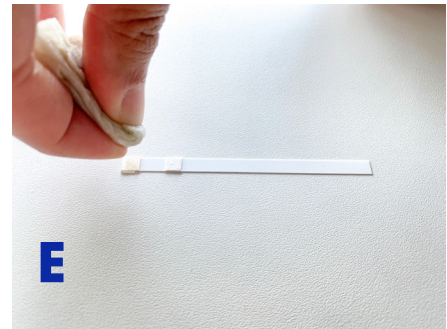
continue with step 7 on the next page 

SOIL (Nmin) MEASUREMENTS

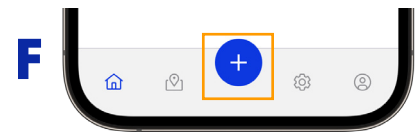
...continued

7 Tear off the bottom (brown) half of the paper so only clear water is left.

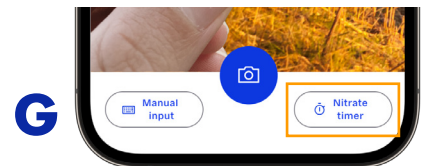
8 Squeeze a drop of water on the top of the reaction surface of the Nitrate test strip (Fig. E).



9 Open the Aquality app and press the big blue button to go to the camera screen (Fig.F).



10 Quickly tap "Nitrate timer" and wait for 60 seconds (Fig. G).

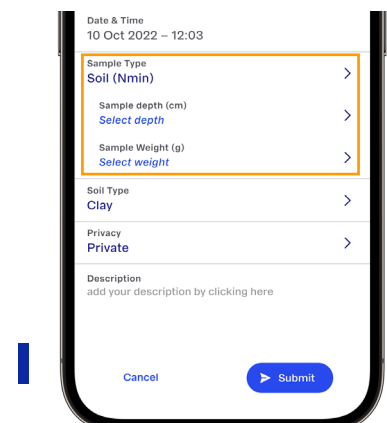


11 After 60 seconds, place the strip on the black line on the reference card. Tap on the camera button to take a picture of the test strip (Fig. H). Alternatively, tap "Manual input" to add the measurement manually.

Tip: Make sure there is good, even lighting and the camera is straight when taking the picture.



12 Check your measurement details. Select the sample type "Soil Nmin", add the depth and weight of the soil sample (Fig. I), and tap "Submit" to upload the measurement.



SALINITY MEASUREMENTS

You'll need:

- 💧 Deltares Aquality app installed on your smartphone
- 💧 EC meter – we recommend Hana Dist4 EC meter

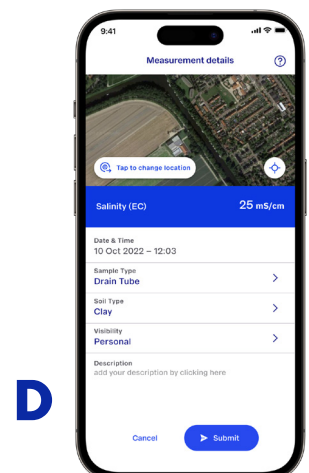
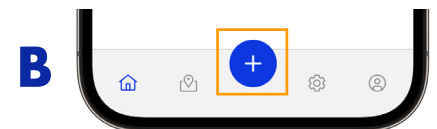
Note:

Before you take a camera measurement with the EC meter for the first time, you need to download a sticker ([download here](#)) and place it above the screen on the EC meter so the app can recognize the device.

- 1** Take a water sample.
- 2** Turn on the EC meter and place it in your water sample (Fig. A).
- 3** Open the Aquality app and press the big blue button to go to the camera screen (Fig. B).
- 4** Take a picture of the meter by tapping the camera button (Fig. C). Alternatively, tap "Manual input" to add the measurement manually.

Tip: When taking a camera measurement, all of the squares in the corners of the sticker must be in focus. Make sure there is good lighting when taking the picture.

- 5** Finally, check your measurement details and tap "Submit" to upload it (Fig. D). If the measurement is not read correctly cancel the measurement and take a new picture, or enter the value manually.

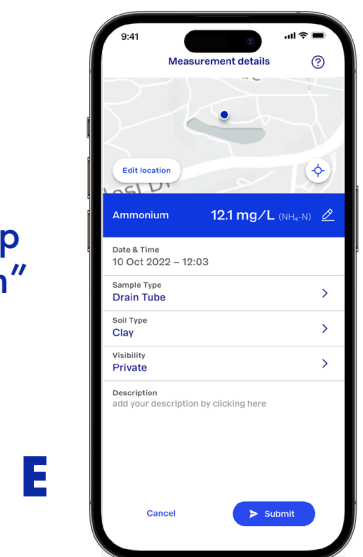
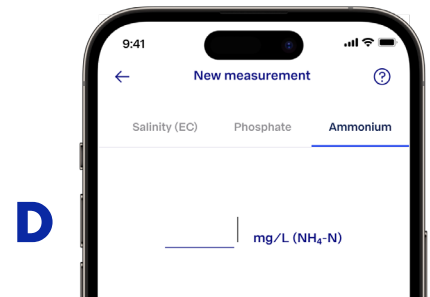
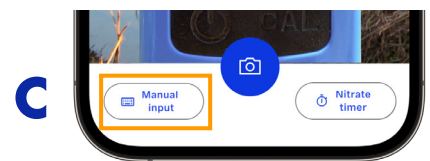
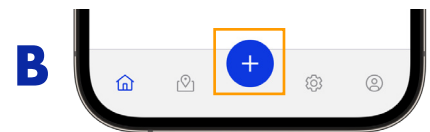
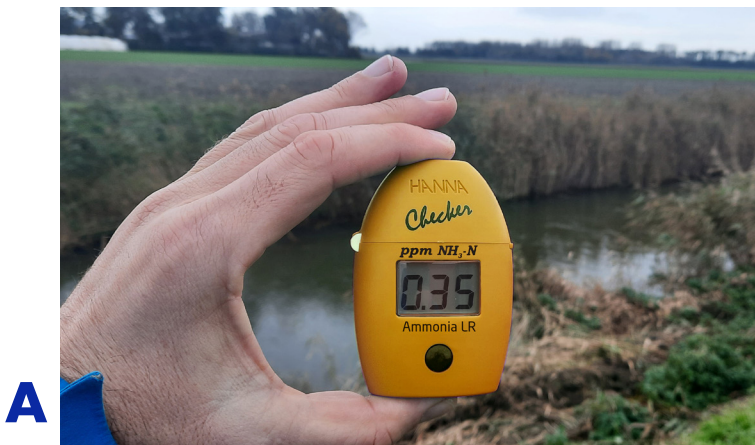


AMMONIUM MEASUREMENTS

You'll need:

- 🔹 Deltares Aquality app installed on your smartphone
- 🔹 An ammonium test kit (a tester and reagent) – we recommend the Hanna Ammonia LR Checker (0.00-3.00 ppm)

Note: test kits or devices with other ranges are also compatible



Note: Ammonium measurements can only be entered manually.

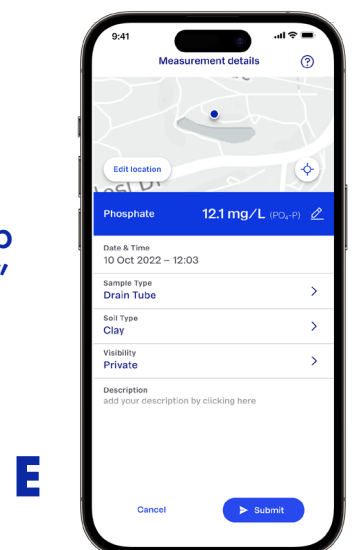
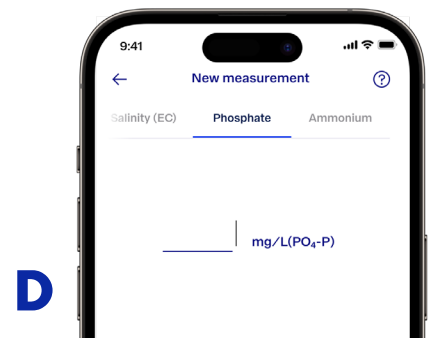
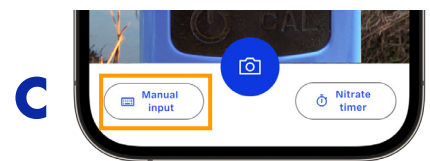
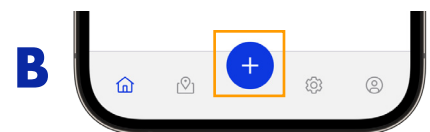
- 1** Take a water sample.
- 2** Follow the test kit instructions to take an ammonium measurement (Fig. A).
- 3** Open the Aquality app and press the big blue button to go to the camera screen (Fig. B). Then tap "Manual input" (Fig. C) and select the "Ammonium" tab to enter the measurement manually.
- 4** Finally, check your measurement details and tap "Submit" to upload it (Fig. E).

PHOSPHATE MEASUREMENTS

You'll need:

- 💧 Deltares Aquality app installed on your smartphone
- 💧 An ammonium test kit (a tester and reagent) – we recommend the Hanna Phosphate Checker (0–2.50 ppm)

Note: test kits or devices with other ranges are also compatible



Note: Phosphate measurements can only be entered manually.

- 1** Take a water sample.
- 2** Follow the test kit instructions to take an phosphate measurement (Fig. A).
- 3** Open the Aquality app and press the big blue button to go to the camera screen (Fig. B). Then tap "Manual input" (Fig. C) and select the "Phosphate" tab to enter the measurement manually.
- 4** Finally, check your measurement details and tap "Submit" to upload it (Fig. E).