

This kit is suitable for testing nitrate levels in pasture samples on farm. With access to accurate digital scales it can also be used to test feed crops such as turnip and brassica.

## Materials provided:

- Colour chart
- 1 x acid pottle
- 1 x grass pottle
- 1 x bottle of 2% Acetic acid.
- 10 x nitrate test strips. Keep refrigerated.

**(Refrigerate the entire kit if possible)**

## Not supplied equipment needed:

- Sharp knife or scissors
- Chopping Board
- Paper Towels
- Gloves
- Watch or timer
- Digital Scales (*feed crops only*)

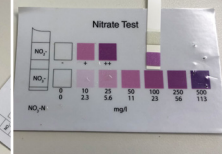
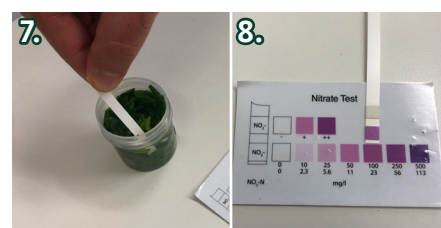
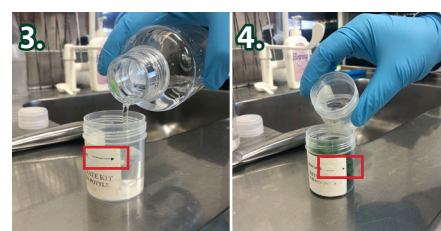
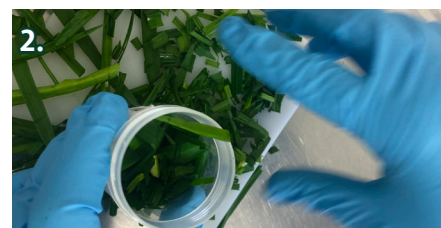
## Nitrate level testing (grass)

- Select a paddock that you wish to monitor. Walk the paddock and collect grass samples from **several areas**.
- **Collect the entire length** of plant as nitrate levels can be different in the stem/bulb compared to the leaf.
- After chopping the grass **mix the cuttings** to get a representative sample of the whole paddock.
- The best time of day for sample collection is **early morning**, as close to sunrise as possible.

1. **Using scissors or a knife chop the sample** into approx. **1 cm lengths**, mixing up the pile as you go.
2. **Fill the "grass" pottle** to the line as marked on the label. Do not compress the grass.
3. **Fill the "acid" pottle** to the line as marked on the sticker.
4. **Pour the acid pottle** contents into the grass pottle and seal securely with the provided lid.
5. **Shake** the grass pottle for 1 minute.
6. **Stand the pottle** for 30 minutes.
7. **Remove 1 strip from the package and dip** into the acid/grass mixture for 1 second, dab off excess acid on a paper towel.
8. **Compare the colour** on the strip to the colour on the chart provided. The comparison should be made **within 1 minute** of dipping the strip where the colour will reach the **maximum intensity**. After this time the colour will **fade away**.

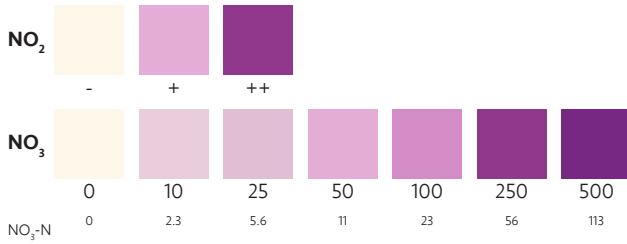
## SAFETY

- **Use caution when dealing with acid.**
- **If contact occurs with skin, flush with water.**
- **If contact occurs with eye, flush with water and in case of irritation seek medical advice.**



## Result Interpretation

### Nitrate test colour chart



Level	Result
0-25	This is a safe level of nitrate to feed
25-100	Feed with caution. Allow animals to feed when not hungry and only allow grazing for a short period; e.g. 1hr
>100	DO NOT FEED! TOXIC LEVELS! Retest pasture in one or two days.

### Nitrate level testing (bulb / stem or leaf)

You will have to test the plant as three separate sections (bulb/stem/leaf) using 3 separate tests, due to the potential variation in nitrate.

For each sample of bulb, stem and leaf - test separately as follows:

1. **Using a sharp knife cut the sample** into very small pieces (approx. 0.5cm diced). Try to incorporate representative parts from all sections of the bulb (top/middle/base) or stem/leaf.
2. **Place the "grass" pottle on the balance** and tare/zero the balance. Add 5g of mixed diced crop sample to the pottle. (Be as accurate as possible: +/-0.05g)
3. **Fill the acid pottle to the line** marked on the sticker
4. **Transfer the acid to the grass pottle** with the crop sample, seal securely and shake for 1 minute
5. **Stand the pottle for 30mins** (use a timer to get an accurate time)
6. **Remove 1 strip from its cover and dip** into the acid/grass mixture for 1 sec, dab off excess acid
7. **Compare the colour on the stick** to the colour on the chart provided. After approx. 1 min the colour on the stick will fade, so read the result after the colour has reached its greatest intensity but no longer than 1 minute.
8. **Repeat test for the other parts of the crop** accumulation in the different parts. Use fresh acid and a fresh strip for each crop part to be tested.

### Conditions that can cause Nitrate to accumulate in the plant:

- Dull/warm overcast weather
- Plant stunting and wilting due to drought followed by period of rapid growth.
- Application of nitrogenous fertilisers e.g. urea, farm effluent
- First grazing of new grass
- Rapid growth or a fast growing plant species
- A combination of the above risk factors

**If you have any questions or concerns regarding this test, please contact your Anexa vet (0800 284 3838)**



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**Huntly**  
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**Matamata**  
P: 07 888 8068

**Morrinsville**  
P: 07 889 5159  
**Ngaruawahia**  
P: 07 824 8630

**Ngatea**  
P: 07 867 7256  
**Paeroa**  
P: 07 862 8815

**Raglan**  
P: 07 825 8390  
**Te Aroha**  
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**Te Kauwhata**  
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