Technical Data Sheet

N13 Total 180 Day (Long term feeding for flowering trees and shrubs)

N13.0 P4.8 K9.1 Release Period 180 days

What is it?

Yates Nutricote N13 Total 180 Day is a blend of Nutricote types with differing release periods allowing nutrients plus trace elements to be available or staged over 180 days or a 6 month period at 25ºC.

Yates Nutricote range is made up of high quality controlled release fertilisers with varying NPKs and release periods. Each polymer coated prill is identically homogeneous to ensure consistent and reliable nutrition is delivered.

When Yates Nutricote is applied the prills begin to absorb moisture through the coating membrane.

This moisture then dissolves the nutrients inside each prill which in turn, builds up the osmotic pressure. The nutrients can then diffuse through the coating.

The amount of release agent contained in the coating determines how porous the coating is, which determines how fast the nutrients will diffuse to the root zone of the plant.

Specific product benefits

Ideal base fertiliser for medium term flowering trees and shrubs.
Enhances flowering and root growth.
Increases photosynthesis and flower development.
Superior control of nutrient release staged over 8-9 months @ 20ºC.
Eliminates the need for labour intensive late season reapplications of fertiliser.
Reduced leaching so optimum fertiliser levels are maintained.
A higher degree of plant safety when compared to similar products.
A durable, resilient and uniform resin coating on each granule.
Every granule is homogenous to ensure consistent analysis.
Consistent granule size for easier and more precise mechanical application.
Consistent rate of nutrient release providing steady feeding according to specific plants nutritional needs.
Contains the highest quality NPK and Trace Element components.

Pack size available

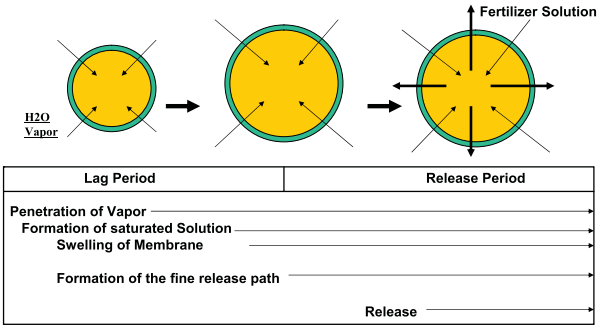
25kg

Release rates

Temp (˚C)	10	15	20	25	30	35
Release (days)	360	290	230	180	140	110

Special Note: Yates Nutricote is rated at 25°C. All major competitor brands in the Australian are rated at 21°C.

Release mechanism



Factors effecting the release of Nutricote

- The nutrient release is moderately affected by temperature. As temperatures increase and decrease so does the Yates Nutricote rate of nutrient release.
- Release rate is aligned and in balance with plant growth rates.
- Soil moisture levels do not significantly affect the nutrient release of Yates Nutricote.
- The rate of release is also unaffected by soil type or soil pH.
- Yates Nutricote does not depend upon microbiological decomposition for its nutrient release action.

Guaranteed Analysis

Typical Analysis	%w/w
Nitrogen (N) as Nitrate	5.2
Nitrogen (N) as Ammonium	7.8
Total Nitrogen (N)	**13.0**
Phosphorus (P) as water soluble	3.9
Total Phosphorus (P)	**4.8**
Total Potassium (K) as Sulfate	**9.1**

Typical Analysis	%w/w
Sulfur (S) as Sulfate	5.0
Magnesium (Mg) as Sulfate	1.2
Iron (Fe) as EDTA Chelate	0.2
Manganese (Mn) as Sulfate	0.06
Copper (Cu) as Sulfate	0.05
Zinc (Zn) as Sulfate	0.015
Boron (B) as Boric Acid	0.02
Molybdenum (Mo) as Sodium Molybdate	0.02

Suggested application rates

Top Dressing (g) Pot size	**Medium** Grams per plant	**High** Grams per plant
100mm / 4"	2.5	3.5
125mm / 5"	5	6
150mm / 6"	7	10
175mm / 7"	9	15
200mm / 8"	11	18
250mm / 10"	18	30
300mm / 12"	24	40
Incorporation (kg/m³)	5	6

How to apply

Top dressing

Evenly apply to the base of the plant keeping fertiliser away from the main trunk or stem.
Water in well after application with a rose type spray to minimise water blast of granules from pot.

Incorporation

Mix well into the soil profile ensuring even application.

General

Release period is governed by soil temperature as shown above.The days shown are when 80% of the Nitrogen is released.

Yates Nutricote should provide the entire requirements of Nitrogen, Potash and maintenance levels of Phosphorus for the release period.

Use high rates for fast draining soils or mixtures of low fertility and for species that are fast growing and watered frequently.

Use medium rates when:

- Used on sensitive crops, ferns, African Violets, Orchids etc
- When soil temperatures are very high
- When liquid feeding is used two to three times per week

Choosing the correct product type

In order to choose the correct **release** type the following information is needed:

- Growth cycle of the plant (the period when the plant will need nutrients, starting when? ending when?)
- Average temperatures in the location
- Other information that may influence the basis of the decision.

Choosing the correct formulation

In order to choose the correct **formula** the following information is needed:

- Plant variety
- Nutritional needs of the plant
- Other information that may influence the basis of the decision.

Application precautions

TRIAL PRIOR TO FERTILISER CHANGE. We recommend that this product is trialled under local growing conditions prior to use on selected crops so that application methods and desired rates can be validated prior to commercial use.

Avoid application to plants under stress or seek advise on reduced rates.

Avoid mounding fertiliser against the base of the plant.

Iron and other plant nutrients can cause staining of porous stone and concrete surfaces.

Keep away from pools, ponds and other bodies of water.

If incorporating into potting mixes use within 14 days and if temperatures are in excess of 30ºC irrigate thoroughly after potting to leach potential excess fertiliser from mix.

Potting as soon as possible after incorporation in mixes is preferred to ensure longevity of fertiliser release and cost efficiency of fertiliser program.

If using in potting mixes with high cation exchange capacities use lower recommended rates or seek advice prior to use.

Always water in well after application.

Safety, health and environment

- Safety Directions
  Keep out of reach of children. Harmful if swallowed.
  Open bags must be re sealed after use and prior to storage, especially in winter and in areas of high humidity. Failure to do so may impact on future product performance.
- Regulatory Classification: Not classified as hazardous substance according to criteria of ASCC.
- Poisons Schedule: No adverse health effects expected if the product is handled in accordance with the Material Safety Data Sheet and the product label. See MSDS for further details.
- Hazardous Substances: Based on available information, not classified as a hazardous substance according to criteria of ASCC.
- Dangerous Goods: Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code for Transport by Road and Rail.
  UN No: 2071
  Class-primary: 9 Miscellaneous Dangerous Goods
  Packing Group: III
  Proper Shipping Name: Ammonium Nitrate Fertilisers
  Hazchem Code: 1[Y]
- Waste Disposal: Refer to local government authority for disposal recommendations.
- Environmental Warnings: Avoid contaminating waterways.

  For further information, consult the Material Safety Data Sheet

Nutricote® N13 Total 180 Day

Technical Data Sheet

General product range benefits

Yates Nutricote gives you and your plants an unfair advantage: improved quality, yield and profit.

Predictability

- Yates Nutricote provides controlled release performance that lasts as predicted even in extreme growing conditions.
- Yates Nutricote will release as expected in very low temperatures (as well as the high one).
- Unlike other controlled release fertilisers that depend mainly on the thickness of their resin coating to control the release period, the release of nutrients from Yates Nutricote is controlled by a special chemical release agent in the resin coating.

Elastic-Coating

The flexible and elastic coating of Yates Nutricote guarantees its release performance. This coating is much more flexible than the other competitive coated products in the market.

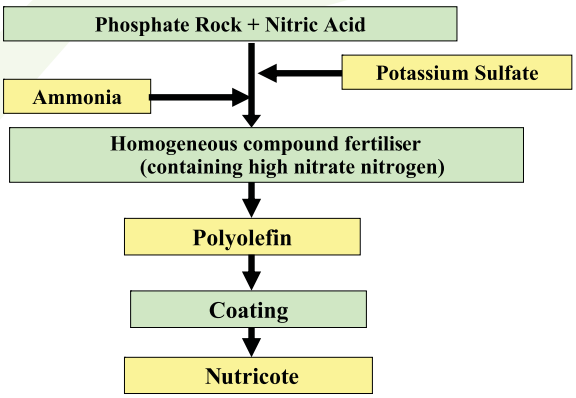
Flexibility

The lasting flexibility of the Yates Nutricote coating ensures accurate release as the coating will always maintain its flexibility, even in freezing temperatures or unstable weather conditions.

Release Control Method

- Yates Nutricote uses vapour permeability control with constant membrane thickness.
- Yates Nutricote uses a blend of both low and high permeability resin to achieve highly predictable nutrient release irrespective of temperature extremes.
- Superior control of nutrient release for the most efficient return on your fertiliser investment.
- Eliminates the need for labour-intensive late season re-application of fertiliser.
- Reduced leaching so optimum fertiliser needs are maintained while lower nitrate and phosphorus amounts are introduced to the environment.
- A high degree of plant safety when compared to similar products.
- Flexibility in release periods, ranging from 40 to 700 days @ 25ºC.
- Contains the highest quality NPK components.
- A durable, resilient and uniform polymer coating on each prill—with no cracks— preventing uncontrolled nutrient release.
- Every prill is identically homogeneous to ensure consistent analysis.
- Consistent prill size for easier and more precise mechanical distribution.
- Higher nitrate nitrogen content in comparison with most other fertilisers.
- Can be incorporated into growing media or top dressed.
- Consistent rate of release provides steady feeding according to the plants nutritional needs.

Material make-up



Membrane coating

Yates Nutricote uses a Thermoplastic Polyolefin coating material. This provides a softer more flexible coating to that of competitive products allowing the membrane to withstand extreme temperature ranges.

What our growers say

"Other fertilisers can't match Nutricote's consistency in release rates…we rarely need to topdress and its reliability helps us to sell the entire crop." Kerrie Hart, *Harts Nursery*

"Yates helped us in developing a fertiliser program to achieve consistent growth, to keep better quality plants for longer on our customers' shelves." Greg Scott, *Scotts Tubes*

"Nutricote's reliable release periods let us tailor our fertiliser to the specific requirements of all of our varieties—in their various pot sizes." Dave Mathews, *Proteaflora*

"By eliminating early-dumping and 'popcorning', Nutricote's superior coating helps us in the production of over two million plants a year." Ray Kilduff, *Andreasens Green*