

## Reduce Losses Of Applied Nutrient In Winter

Leaching occurs when soil reaches near capacity to hold moisture and the necessary nutrients leave the plant root zone. Not only is this costly to the grower, but potentially harmful to the environment when not managed correctly. Nitrogen (N), Potassium (K) and Sulphur (S) are all soluble within the soil, and due to this mobility, the occurrence of leaching in all soil types is possible after heavy rainfall or excess irrigation.

Timing and level of application is critical to avoid excess nutrient in the soil being leached, with nutrient only applied at rates that don't exceed the pasture or crop demands in a single application. Nutrient should only be applied to species that are actively in their growing season. Plant species that are dormant through the winter (summer active) will not utilise a nutrient application and are therefore at risk of losing the nutrient from the root zone prior to the plant requirements.

Other limiting factors impacting Nitrogen take up and response are:

- poor fertility
- high weed pressure (this may include both broadleaf or grass species)
- low dry matter residual, creating excess nutrient not being utilised and potential for loss.

**To find out more about improving your fertiliser response rate over winter talk to your local Brown's agronomist.**

## End of Financial Year Planning

June 30 is fast approaching which means it's time to start planning for the end of financial year.

Brown's Fertilisers are again offering our Forward Purchase Plan.

**Pay money into your Brown's Fertilisers account  
before June 25, 2021 and take advantage of  
a discount on the price of fertiliser!**



### What do I have to do?

Speak to your local Brown's agronomist to find out more or for application form. From there, you simply deposit a minimum of \$5,000 into your Brown's Fertilisers account prior to 25<sup>th</sup> June 2021. A discount will be applied to the agreed market price in the month of the dispatch when using the funds deposited, as part of the Forward Purchase Plan.

# Nutrition Management of Dual-Purpose Crops

Dual purpose crops hold potential to increase on-farm productivity and profitability in mixed farming enterprises. When managed appropriately, these crops can provide high quality feed, impacting live weight gains and net crop returns by up to \$600/ha (GRDC, 2019).

Broadacre crops including Oats, Triticale, Barley, Wheat and Canola are all suitable for dual purpose grazing. It is important to consider long season “winter” varieties which have a long vegetative growth period. These varieties have a vernalisation requirement (requirement to be exposed to critical length of cold temperature prior to flowering) hence, they can be sown early and provide good grazing potential over winter.

## What to consider:

- Soil tests should be taken 2-3 months prior to sowing.
- Weed pressure during summer fallow should be managed to maximise early sowing opportunities into soil moisture.
- In a livestock dominant enterprise, awnless varieties have the potential to be grazed out late if the crop has been damaged.
- Early applications of nitrogen and phosphorus encourage good early biomass production. This allows for top dressing decisions to be made dependent on how the season is looking:

Starter Nitrogen (inclusive of applied and mineralised soil nitrogen):

100-150kg N for winter wheat

50-100kg N winter canola

Top dressing N applications after locking up:

40kg N for every 1t grain yield in wheat (based on target/yield estimation)

80kg N per hectare for canola

## When to graze and remove stock?

- Winter wheats may be grazed around the time the plant starts tillering or passes the ‘tug-test’ (mimic grazing pressure by tugging on the plant, if it is held in the soil by the roots it is ready to graze).
- Stock removal is far more important and should be done at Growth Stage 31 (GS31). As shown in figure 1 This is when the first node is above ground. If grazing stock were to remove this, the crop will not flower/produce grain.
- Stock should be removed from grazing canola prior to stem elongation.
- Nitrogen applications should be timed with stock removal. This coincides at a time of high crop usage and will influence grain yield.

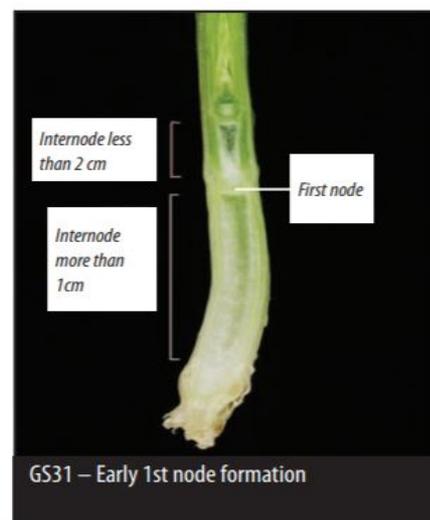


Figure 1 Growth Stage 31 Wheat. Source: GRDC, 2005.

**Koo WeeRup**  
150 Sybella Avenue  
Koo Wee Rup  
Ph: 03 5997 2203

**Leongatha**  
96-102 Horn St  
Leongatha  
Ph: 03 5667 3100

**Maffra**  
620 Heyfield Upper-Maffra Rd  
Tinamba West  
Ph: 0427 220 127

**Merton**  
744 Maroondah Hwy  
Merton  
Ph: 03 5778 7490

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# The role of Gibberellic Acid (GA)

Gibberellins are a naturally occurring plant hormone that play a role in stimulating cell expansion and elongation, particularly during the spring months through mobilising plant energy reserves. Gibberellic Acid (GA) is widely used across the horticulture, fruit and pasture industries.

The application of Gibberellic Acid on pastures (ryegrass, phalaris, cocksfoot) can be used as an additional tool to assist in stimulating more growth from late autumn to late winter when pasture growth rates are slow.

## **Before applying:**

- There must be adequate soil moisture and NPKS nutrients at time of application.
  - GA is not a replacement for nitrogen fertiliser.
- For best response, apply 0-5 days post grazing when there is enough leaf for uptake.
- Avoid applying to new sown pastures in their first 6 months.
- Rest paddock for 3-4 weeks to allow a successful response.
- Don't apply if there is rain within 2 hours of application

## **Post application:**

A few days after GA has been applied to pastures, it will stand more erect and will tend to show a yellowing or pale appearance. Over the next few weeks, the plants will regain their green colour (as picture below).



Picture 1: Treated pasture. Image - Dairy NZ, Nufarm



Picture 2: Non treated. Image - Dairy NZ, Nufarm

You can expect 200 – 500 kg DM/ha additional growth four weeks post application when soil moisture, temperature and nutrient are not limiting. Nitrogen fertiliser can add additional dry matter production that is independent of the GA application. The combination of the two can help provide the boost of pasture cover going into and through winter.

With plant reserves mobilised to produce additional growth it is very important to ensure the pasture is rested for at-least 3-4 weeks for plant reserves to be replenished (e.g. Ryegrass two an a half leaves)

Talk to your agronomist to see if Gibberellic Acid fits with your business and remember to always follow the label on all chemicals.

# Beneficial Insect: Dung Beetles

Dung beetles are beetles which feed on dung. There are many different species, including many native ones and they have evolved to feed on the dung of different species of mammals. The introduced species of beetles are very useful in agricultural systems as they can remove large amounts of dung produced by introduced farm animals. This benefits the soil system in a range of ways including soil aeration and nutrient flow to pasture root zones, as well as acting as a biological control for insect pests, including flies and other parasites.

The majority of dung beetles feed on dung during their adult and larval phase. Different species of dung beetles are active during different seasons. Adults lay eggs in the dung or underground in 'brood balls'. When the larva pupate, they emerge as adults and fly to a new dung pad to begin the whole process again. At the end of the season the adults die.

Download 'MyDungBeetle Reporter' app for free to assist you in identifying what's on your farm.



Picture 1: Close up view of a dung beetle.

<p>NRM: <b>Port Phillip and Western Port</b> STATE: <b>VIC</b></p> <p><i>Geotrupes spiniger</i> (autumn, winter, spring) <i>Onthophagus binodis</i> (summer, autumn, spring) <i>Onthophagus taurus</i> (summer, autumn, spring)</p>	<p>NRM: <b>West Gippsland</b> STATE: <b>VIC</b></p> <p><i>Euoniticellus fulvus</i> (summer, autumn, spring) <i>Geotrupes spiniger</i> (autumn, winter, spring) <i>Onthophagus taurus</i> (summer, autumn, spring)</p>	<p>NRM: <b>East Gippsland</b> STATE: <b>VIC</b></p> <p><i>Bubas bison</i> (winter) <i>Euoniticellus fulvus</i> (spring) <i>Onthophagus binodis</i> (summer, spring) <i>Onthophagus taurus</i> (summer, autumn, spring)</p>
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Dung beetle species typically found in Gippsland



**Jessica Ashburner**  
B. Agr. Sci  
0408 082 036  
Koo Wee Rup



**Tim Manders**  
A. Dp FBM  
0417 972 200  
Koo Wee Rup



**Alexander Mapleson**  
B. Agr. Sci  
0409 406 234  
Koo Wee Rup



**Katherine Bohn**  
B. Agr. Sci B. Bus. (Eco)  
0447 873 888  
Leongatha



**Vicki Nink**  
Dip Ag (Services)  
0400 879 818  
Leongatha



**Laura Hunt**  
B. Agr. Sci  
0427 220 127  
Tinamba



**Peter Howie**  
B. Agr. Sci  
0409 383 529  
Merton