

## Issue 18 Sunday 4 October 2026

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### Editor's note

FAR's early [spring field walks](#) have concluded, but a second round of these is incoming – keep an eye on the FAR [events](#) page. A new initiative from FAR's Jo Drummond is the Cereal Snapshot Series. These have been well received and have also been recorded and put online. You can find these up-to-the-minute growing season updates on the [“Shorts”](#) tab of FAR's YouTube channel.

At FAR's Arable Research Site near Chertsey, most spring crops have gone in apart from peas. We've planted some vegetable crops this year as part of our research partnership with NZVeg on herbicide-resistant weeds.

Wireweed was coming up in some of the spring barley, but as the crop was still some way away from emerging, we were able to control this with glyphosate. Spring nitrogen and PGR have been applied to the autumn wheat, with a T1 fungicide coming up. There was no need for T0 fungicides for any of our cereals, despite a little bit of stripe rust being observed in the milling varieties.

The ryegrass trials are being topped with regular mowing, with the 'Three60' in particular being kept very short. This was because we had noticed, with the extra early spring growth, that false nodes were forming and extending to a height that risked being removed at closing. This can remove growing points and potentially reduce seed yield. Field pansy is an issue in the spring linseed, Quantum® (a.i. diflufenican, Group 12) will be applied to attempt to control this. White clover is coming away nicely now after a slow winter, and we have sprayed out plot lines for the trial.

### **Southland and South Otago**

Waterlogged crops and paddocks are causing much anxiety and making spring work impossible for many in Southland and South Otago. Crops in these wet areas will require careful management as they are likely to be under stress and will not be growing as much as they would otherwise be at this time of year. This means they will be drawing less (or no) nutrients from the soil, which in turn will impact on how, and how much, fertilisers should be applied.

FAR has scheduled a webinar for affected growers on Monday 12 October [find out more and register here](#). Speakers will include FAR's Jo Drummond, Abie Horrocks, Sean Weith and Chris Smith.

In the meantime, here are some things that may need to be considered (these will be addressed in greater depth in the webinar).

- N budgets may need to be altered due to the likelihood of reduced yields and/or nutrient leaching.
- What's the best form of N to use? Calcium ammonium nitrate is more readily available, but costs around \$5.00/kg N compared to a urease inhibitor at around \$2.80/kg N. Consult your agronomist if unsure.
- What about other nutrients? S and P are easily leached.
- Are foliar-applied fertilisers a viable option? Consult your agronomist.
- Is aerial application an option?

Further reading:

- FAR Focus 14: [Nitrogen – the confidence to cut back](#).
- Reviewing target yields and altering N to suit [Arable Extra 143: N Smart - Six soil-driven steps to smarter nitrogen fertiliser decisions](#)

## Crop management

### General

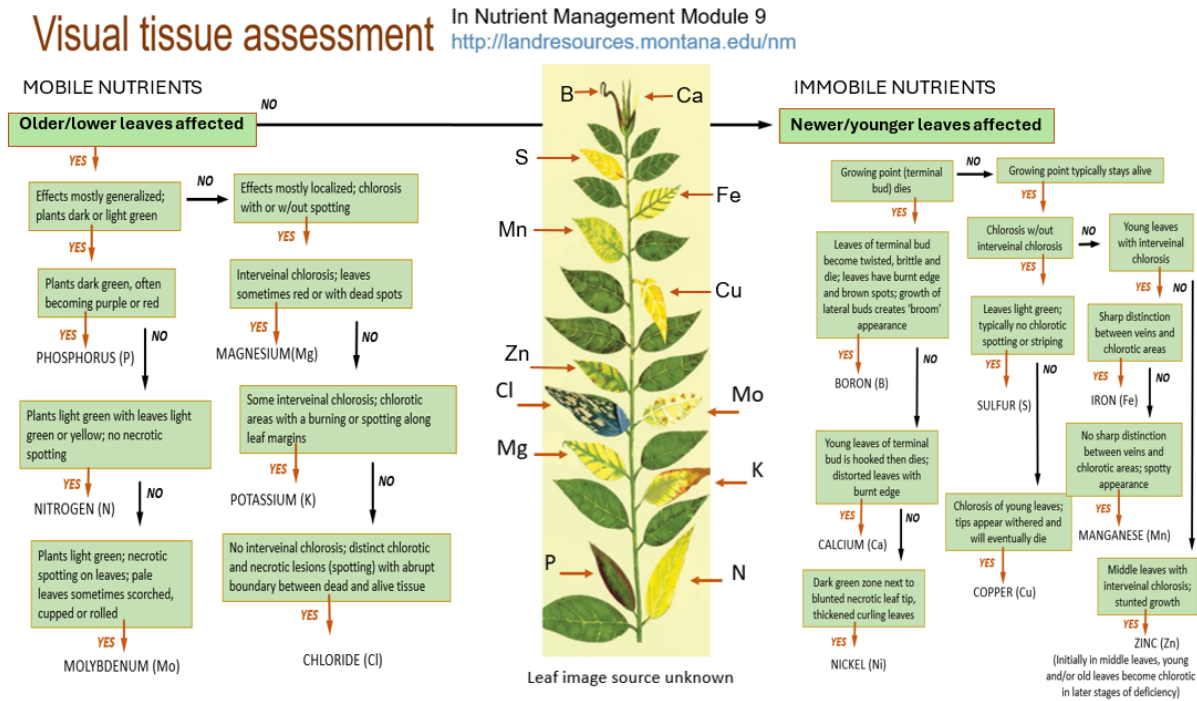
#### *Does your crop need micronutrients?*

FAR has received a few enquiries about whether it is worth applying a product that provides micronutrients to the crop. “Essential” micronutrients are trace elements that are essential for crop growth, but in very small quantities. Other micronutrients are important for animal health but not essential for crop growth.

| Essential micronutrients |    | Micronutrients for animal health |    |
|--------------------------|----|----------------------------------|----|
| Boron                    | B  | Cobalt                           | Co |
| Iron                     | Fe | Selenium                         | Se |
| Copper                   | Cu | Iodine                           | I  |
| Manganese                | Mn | Fluorine                         | F  |
| Molybdenum               | Mo |                                  |    |
| Nickel                   | Ni |                                  |    |
| Zinc                     | Zn |                                  |    |
| Chlorine                 | Cl |                                  |    |

When considering applying a micronutrient product, it is normally advisable to apply only when an actual deficiency has been identified by soil or tissue testing or observed plant symptoms (see Figure 1). The next step is to choose a product. Ideally, a product should be backed by independent, trusted testing under New Zealand conditions. Seek advice from a reliable rural professional.

**Figure 1:** Using plant tissue symptoms to identify nutrient deficiencies.



## Beginning irrigation

Some timely rains during September have kept [soil moisture](#) levels across the country at healthy levels. To date, the only irrigators I've seen running in running in Canterbury have been on dairy farms, but it will be arable's turn soon enough.

Knowing exactly when to begin is always a tricky calculation. Knowing your soil type and its water holding capacity (WHC) is a good place to start. Also feeding into this decision is knowing how long your irrigator takes to get around to where it started.

Another important consideration is how much to irrigate. If rain is forecast, it is good practice to leave 10-20 mm of soil capacity unfilled by the irrigator so that any rainfall is not "wasted". This also reduces the risk of nutrient leaching.

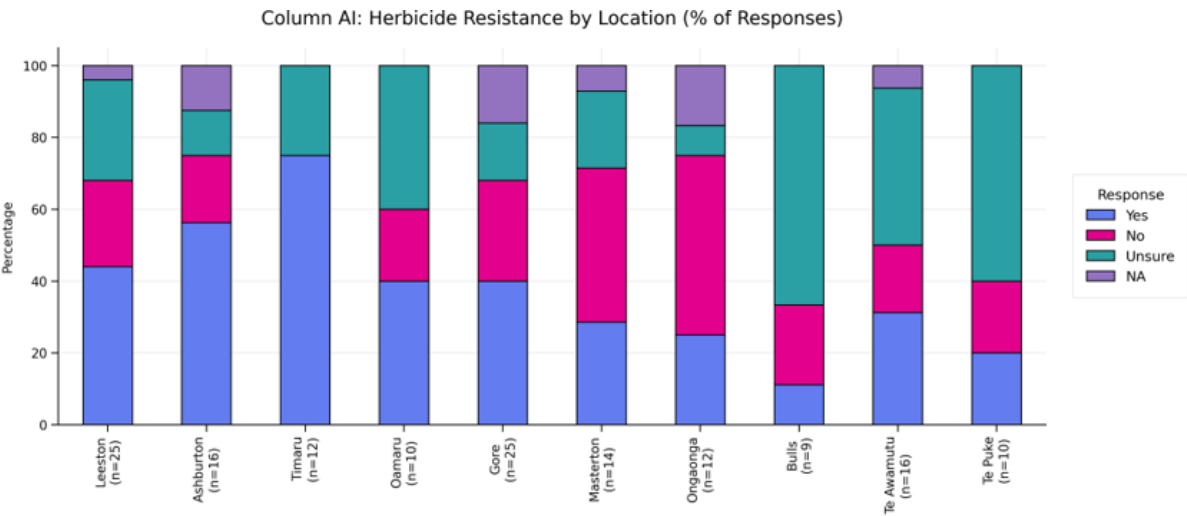
Useful resources:

- "Cut the Crop" podcast – [Making the most of irrigation](#).
- [Bucket testing your irrigator](#).
- [FAR Focus 4-Irrigation Management for cropping](#).
- [Booklet from the recent FAR Field Walk](#). (See p22)

## Spring weed management

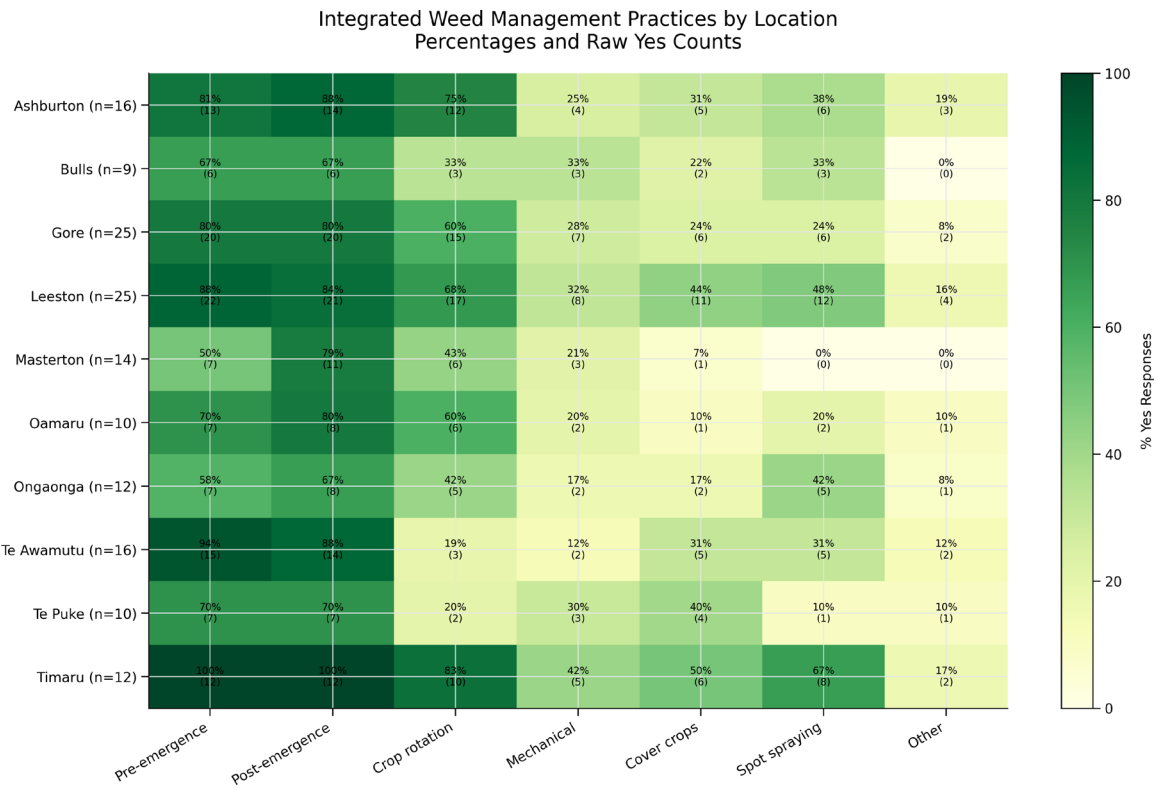
August's sprayer workshops were followed by a series of WeedSmart NZ Integrated Weed Management (IWM) events across the country. A survey of growers at the sprayer events found that on average 60% had observed herbicide resistance on their farms nationwide, while 78% of rural professionals who attended a recent FAR workshop on integrated weed management in Ashburton have observed suspected herbicide resistance on their clients' properties.

**Figure 1:** Results of a survey at recent FAR sprayer workshops.



When these figures are considered alongside ongoing detection of herbicide resistance in FAR’s 2026 annual weed and herbicide resistance surveillance programme, it seems likely that new approaches to weed management will be required. The positive news is growers are already using a variety of integrated weed management tools, especially in regions such as South Canterbury which have greater resistance issues.

The diagram (heat map) below shows the percentage of sprayer workshop participants using different weed management tools.



A key takeaway from WeedSmart NZ Integrated Weed Management (IWM) workshops was the importance of long-term farm and paddock-scale planning to prioritise weed issues and stay ahead of potential problems, particularly where there are signs of herbicide resistance.

Three simple actions identified during the workshops to help reduce risk were:

1. **Check herbicide performance.** Revisit treated paddocks to assess whether herbicide applications achieved the desired level of control. If results are poorer than expected, consider why. Was application timing less than ideal, or are weeds becoming increasingly difficult to control? Poor performance may be an early indicator of herbicide resistance and could signal the need for a different management approach.
2. **Prevent new weed problems from entering or spreading around the farm.** Have confidence in the seed coming onto your property and do not hesitate to ask questions of seed suppliers or representatives – FAR data show it can come with herbicide resistance. Managing machinery movement, both onto the farm and between high-risk and low-risk paddocks, can also significantly reduce the spread of weed seeds and resistant weed populations.
3. **Map weed and herbicide resistance issues.** Recording the location of known weed problems or suspected resistance will help agronomists and farm advisers provide more targeted recommendations. It also ensures that knowledge is retained within the business and remains accessible to staff in the future.

At FAR's Chertsey site, following these recommendations will involve assessing recent herbicide applications and mapping current weed issues across the farm. This work is particularly important as we suspect herbicide resistance may be emerging in some areas of the site.

For more info see:

- Recent FAR (Cut the Crop) [podcast](#) on IWM featuring Danish expert Mette Sonderskov.
- FAR technical reports on integrated weed management. Click [here](#) to see what's available.
- [Booklet](#) from FAR's recent WeedSmart workshops.

## Cereals

### *Aphid monitoring*

Some warmer days in the South Island this week may have some growers considering insecticide options (if they haven't already applied one this spring), but remember that once crops reach GS32, the economic benefits of applying foliar insecticides markedly decrease. For many autumn-sown cereals, this stage will be very close, and some will have already reached it. However, aphid monitoring data shows that aphid flights have not yet begun, and temperatures for September were close to the historical average. Some regions are still experiencing frosts, which will also be keeping aphid spread in check. For these reasons, the risk of yield losses from aphid-vectored viruses remains relatively low compared to other seasons, especially if there are beneficial insects around. A new publication is available that outlines how best to encourage a healthy population of beneficial insects using native plantings. Read it [here](#). You can also check out the latest in aphid monitoring data at the [Aphid Chat](#) website.

The following videos provide more about aphid monitoring and how to make the most of the Aphid Chat website.

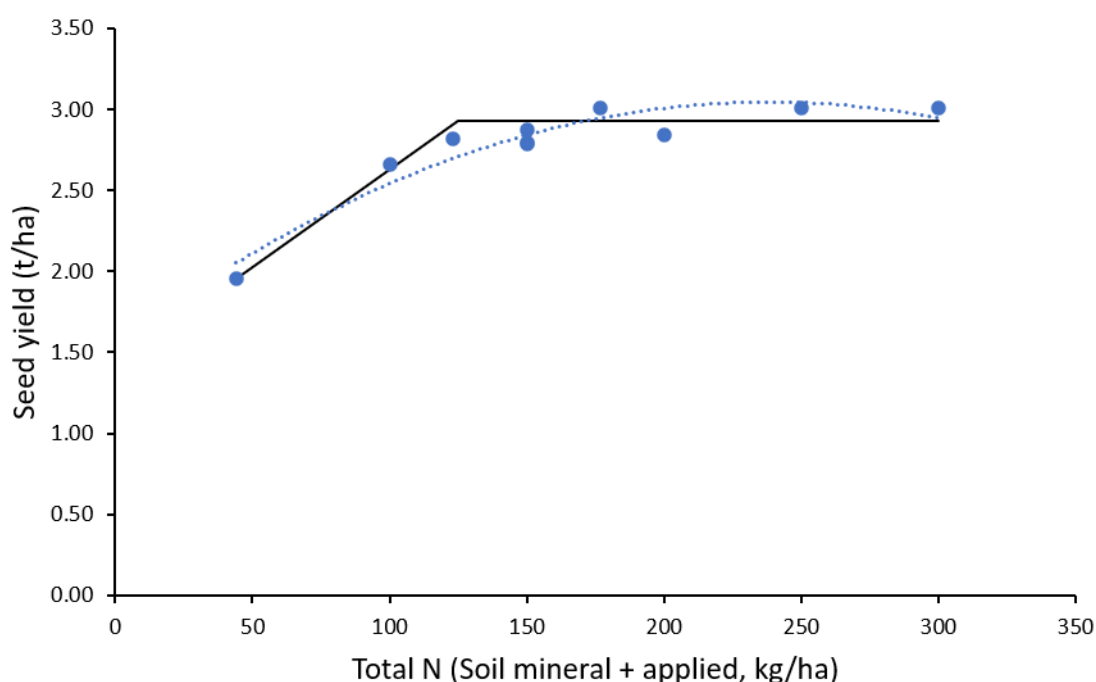
- [FAR aphid monitoring](#)
- [Getting the most out of Aphid Chat](#)

## Herbage

### *Nitrogen on plantain seed crops*

In recent years, FAR has been conducting research on the optimal rates and timing of nitrogen fertiliser for plantain seed crops. These studies have shown a “break point” (Figure 1) of around 125 kg N/ha (including soil N), beyond which economic returns on applied N begin to diminish. The first application of N is usually in the next week or so; the second at closing (around the end of October) with a further application a month later. Read more [here](#) (see p53).

**Figure 1:** Seed yield response to nitrogen in a plantain seed crop grown near Southbridge in the 2023-2024 season



## Maize

### *Pre-emergence herbicides in maize*

Getting the most out of your pre-emergence herbicides requires an understanding of the factors that can affect their success. First, understand what weeds are likely to come up based on paddock history, and whether there has been any history of herbicide resistance in the paddock or in the area. Use a range of herbicide modes of action (MoA – see Table 1) across the whole rotation to lower the chances of herbicide resistant weeds developing.

Some other important considerations include:

- Time of planting: earlier sowing increases the likelihood of needing a follow-up post-emergence spray.
- Weather forecast: most pre-emergence herbicides need moisture to activate the active ingredient. Without rain they will need to be incorporated into the soil.

- Soil type, crop residue and soil organic matter can influence herbicide effectiveness. Read the label and/or consult with your agronomist.

Further reading:

- [Maize Update 90](#)
- [FAR Focus 17 – Maize Weed Management](#)

**Table 1.** Selective pre-emergent herbicides registered for use in both maize silage and grain crops.

| Mode of Action Group Number | Active ingredient | Type                    | Products                                                                                                                                         | Primary weed target                                                                                                                                                                                                                             |
|-----------------------------|-------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3                           | pendimethalin     | pre- and post-emergence | AGPRO pendimethalin, Stomp® Xtra, Strada®                                                                                                        | Broadleaf + grasses                                                                                                                                                                                                                             |
| 5                           | terbuthylazine    | pre- and post-emergence | Assett™, AGPRO terbuthylazine, Magneto®, Terb 500™, Terbaflo, Timberwolf                                                                         | Broadleaf                                                                                                                                                                                                                                       |
| 14                          | saflufenacil      | pre-emergence           | Sharpen®                                                                                                                                         | Broadleaf.                                                                                                                                                                                                                                      |
| 15                          | acetochlor        | pre-emergence           | Ace™, Acetoken, Acierto®, Agcare® acetochlor, AGPRO acetochlor, Donaghys acetochlor, Joker®, Maize Guard®, Roustabout®, Smart acetochlor, Sylon® | Grasses + some broadleaves including: Amaranthus species, black nightshade, chickweed, redroot, Scotch thistle, seedling dock, shepherd's purse, stinking mayweed, rayless mayweed, twin cress                                                  |
|                             | alachlor          | pre-emergence           | Alaken, Corral®, Cyclone®, Encaps®, Merit®, Taipan®                                                                                              | Grasses + some broadleaf, including: black nightshade, fathen, redroot.                                                                                                                                                                         |
|                             | dimethenamid      | pre-emergence           | Frontier®                                                                                                                                        | Grasses + some broadleaves including: apple of Peru, black nightshade, fathen, redroot, seedling dock, spurrey, twin cress, willow weed                                                                                                         |
|                             | metolachlor       | pre-emergence           | Guvnor™ Gold, Metoken Gold, Super Maestro                                                                                                        | Annual grasses                                                                                                                                                                                                                                  |
|                             | propachlor        | pre-emergence           | Ramrod®                                                                                                                                          | Grasses + some broadleaf, including chickweed and groundsel. Only susceptible at higher rates: fathen and redroot                                                                                                                               |
| 27                          | mesotrione        | pre- and post-emergence | AGPRO Mesotrione, Dominator®, Donaghys Lektor, Mesoflex®, Primera®                                                                               | Broadleaf including: Bathurst bur, black nightshade, chickweed, dandelion, fathen, fennel, fishtail oxalis, Galinsoga, hairy nightshade, hemlock, mallow, redroot, seedling docks, spurrey, stagger weed, twin cress, willow weed and wire weed |

## Soil temperature monitoring

Maize germination and emergence are dependent on temperature, especially soil temperature. Soil temperatures need to be at or above 10°C and rising (at 9:00am at planting depth) for successful germination. In combination with soil temperature, germination is triggered by absorption of water through the seed coat. Maize kernels must absorb (imbibe) about 30% of their weight in water before germination begins. Less than optimum absorption of water combined with cold soil temperature may slow or halt germination. Maize typically requires from 55 to 85 Growing Degree Units to emerge (using a 10°C base for GDU calculation).

## Pros and cons of early planting

Planting early does have advantages; these include early flowering, which is particularly advantageous in years where the risk of drought stress is high. It can also reduce yield losses from fall armyworm (see [below](#)) in areas where this is a problem. However, it should be noted that when planting early in the season, getting seed in the ground one day earlier does not mean one day earlier to flowering. Also, slower growth associated with early planting means slower row closure which can result in the need for greater weed control.

Tillage can also affect soil temperature. Cultivation tends to increase soil temperatures compared to no-till, so seedlings tend to emerge faster following cultivation. Slower emergence and higher slug numbers need to be considered in no-till crops.

**Table 1:** Soil temperatures at 10 cm (as at 9:00 am, 28/9/2026) for some key maize-growing regions in New Zealand. Also shown are the temperatures for the same period last year.

| Region        | Station        | Soil Temp (°C) | 2025 Temp (°C) |
|---------------|----------------|----------------|----------------|
| Northland     | Kaikohe        | 12.3           | 14.2           |
| Waikato       | Rukuhia        | 13.8           | 14.3           |
| Bay of Plenty | Te Puke        | 10.6           | 13.3           |
| East Coast    | Gisborne       | 5.9            | 12.1           |
| Hawke's Bay   | Havelock North | 12.5           | 16.4           |
| Manawatu      | Levin          | 9.6            | 12.5           |
| Canterbury    | Lincoln        | 8.6            | 9.9            |
|               | St Andrews     | 8.4            | 8.4            |

## Planting to reduce fall armyworm (FAW) risk

When planning for maize planting, it is worth considering options for reducing FAW pressure. Over the past three seasons, the worst affected crops have generally been those planted later, particularly in late November and December. In Northland, this has coincided with second-generation FAW flights and larger pest populations, resulting in greater plant damage, increased insecticide use, and reduced yields. Later-planted maize and sweetcorn crops in other regions have also experienced higher pest pressure and cob damage.

### Key actions:

- **Plant early:** Where practical, plant as early as conditions allow (see above).
- **Scout regularly:** Check crops as soon as they emerge.
- **Monitor throughout the season:** Schedule regular crop walks as FAW populations can build over time.

Further reading:

- [Report on the first five years of FAW in New Zealand](#)
- [www.fallarmyworm.nz](http://www.fallarmyworm.nz)

## Oilseed rape

### Fungicide application

OSR flowering is time to consider fungicide applications; mainly to control *Sclerotinia*. (Note that *Alternaria* pressure occurs later in the season.) Typically, only one application, at 20-30% flowering, is required to control this disease. However, if disease pressure is high, this may be followed by a second application at 50% flowering. A list of available fungicides with activity on *Sclerotinia*, *Alternaria* or both is shown in the table below. Conditions are favourable for *Sclerotinia* when crops have dense canopies and there is a lot of moisture accompanied by warm temperatures. Paddocks with a shorter rotation (i.e. a recent oilseed rape crop) are at higher risk. Thanks to PureOil NZ for providing the information used to create this article.

| Product                    | Active(s) and Group(s)                 | Rate          | Notes                                                                                                                                                         |
|----------------------------|----------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Aviator Xpro®              | bixafen (7) + prothioconazole (3)      | 0.8-1 L/ha    | Strong option for both diseases, ideal for high-risk periods. Prothioconazole targets <i>Sclerotinia</i> , while bixafen adds to <i>Alternaria</i> control.   |
| Proline®<br>(and generics) | prothioconazole (3)                    | 0.4-0.5 L/ha  | Reliable choice for <i>Sclerotinia</i> at flowering and <i>Alternaria</i> later. A follow-up spray may be required for <i>Alternaria</i> under high pressure. |
| Amistar®<br>(and generics) | azoxystrobin (11)                      | 0.5-0.75 L/ha | Moderate efficacy on <i>Alternaria</i> but limited for <i>Sclerotinia</i> . Best used in combination with other fungicides for broader protection.            |
| Prosaro                    | Prothioconazole (3) + tebuconazole (3) | 0.8-1 L/ha    | Strong <i>Sclerotinia</i> control with dual azole action. Effective against <i>Alternaria</i> when conditions are wet and warm.                               |

## Vegetable seed production

### Encouraging alternative pollinators

Are you growing a vegetable seed crop such as radish or carrot this season? FAR, in conjunction with Plant & Food Research and SIRC, has conducted research on alternative pollinators for these kinds of crops. One such pollinator, the drone fly (*Eristalis tenax*), has shown to be more effective than honeybees in some respects. Drone flies are cheap and easy to manage, and they work well alongside honeybees for pollination, as they work in cooler conditions. The research team have developed a fact sheet outlining how to build quick, easy, cheap and effective drone fly breeding bins. [Read it here](#) and have a go at adding some drone flies to your pollination programme this season. You can also listen to a podcast on the topic [here](#).

## Weather Updates

### Long-term climate outlook

According to [Earth Sciences New Zealand](#), El Niño conditions have continued to strengthen and are expected to be the dominant driver of climatic conditions over the next three months. Westerly air flows will prevail (with some south-westerly flows from October), and temperatures will be near average or above average. However, there will be a lot of variability throughout spring, with cold snaps expected from time to time. Rainfall totals over the next three months are expected to be either average or below average, except for the north and east of the North Island, which should plan for below average rainfall. The south and west of New Zealand is likely to experience high rainfall events. Below normal rainfall for various regions through winter has led to reduced groundwater recharge. During spring, many of these regions are likely to experience reduced rainfall, more frequent dry spells, and enhanced drying of soils and vegetation, creating challenges for water-reliant sectors.

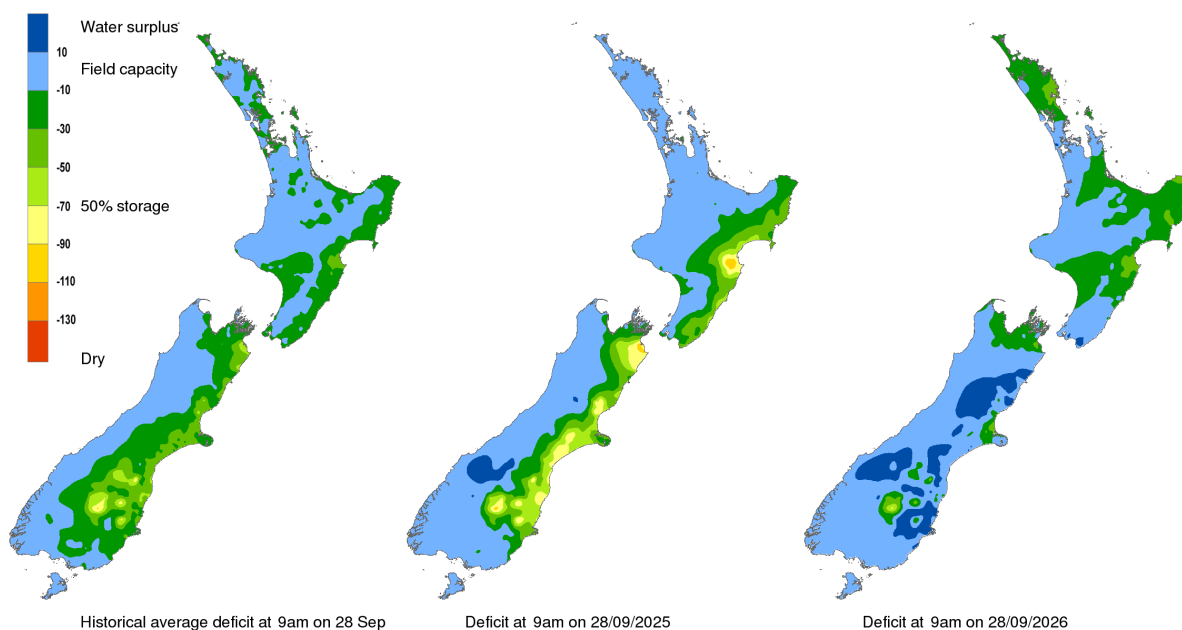
For more on what looks likely to be one of the strongest El Niño events on record, click [here](#).

### FAR weather tool

The FAR online weather tool is a great way to track weather patterns and to compare the current season's conditions with those of previous years. There are also a number of tools available to help with predicting disease and pest pressure. You can check it out [here](#). Click on the link and select the weather station closest to you from the drop-down box at the top right of the screen. Please contact us if you have any queries about the tool, or suggestions on how to make it better.

**Soil moisture data:** see more from Earth Sciences NZ [here](#).

Soil moisture deficit (mm) at 9am on 28/09/2026



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