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Editor's note

Spring activities are now in full swing at FAR's Chertsey arable research site. Autumn sown crops are progressing rapidly through their growth stages, with wheat at or approaching GS 31 and white clover responding well following timely weed management.

Autumn fertiliser has been applied to cereal and grass seed trials, with some also receiving plant growth regulator (PGR) and fungicide treatments. Spring weed control is also underway across the site, with field pansy and brome grasses proving particularly challenging.

Spring sowing is set to begin shortly, with spring barley and a pea seed trial due to be planted in the coming days. The pea trial is investigating *Ascochyta* management, and to help ensure its success, soil testing for *Aphanomyces* was carried out prior to sowing. Results showed pathogen levels to be within an acceptable range for the trial to proceed. Hopefully growers have received positive results back too.

FAR conducted a series of spring field walks in Canterbury this week, featuring helpful and timely advice on arable activities relevant to the current season. If you couldn't make it, the booklet from the event can be found [here](#).

Regional Updates

Northern North Island

Ground temperatures are around 12°C and stable to increasing. Ground conditions are looking good and on track for maize planting in late September - early October. Some growers in the Waikato have started strip-tilling in the hope of planting before the end of September. Further north in Northland, ground temperatures are warmer at around 14°C and there may be some early maize planting within the next week. Early planting has benefits around reducing fall armyworm pressure, as well as possibly mitigating the possible effects of the anticipated dry summer and autumn.

Eastern North Island

In the Wairarapa, paddocks and pastures are drying out after numerous flood events over the winter. Soil temperatures are on the rise, sitting around 13-14°C and some will be contemplating getting spring planting underway. There is some grass grub and porina damage around the place, but not as bad as previous years.

Northern South Island

Spring has sprung, and thankfully it is not yet as dry as we had feared. Three weeks ago, growers expected to be hitting the irrigation season running as soon as water was available, but regular rains have kept soil moisture levels up for the time being.

Spring cereal drilling is well underway, and other spring crops are getting in the ground as paddocks become available.

For autumn cereal crops, decisions on PGRs and [weed sprays](#) are being actioned; early fertiliser is being applied, and the regular rainfalls are helping with washing that in. Monitoring crops for disease and aphids will determine the need for action on those fronts, but reports are of generally clean paddocks at this stage.

Good winter growth and high utilisation of feed due to kind weather have left many farms with not enough mouths to eat all the feed available. Growers are silaging remaining greenfeed crops, cutting grass seed crops for silage rather than grazing, or choosing to close grass seed crops early. Silaging grass seed crops typically needs to be done ten days earlier than if closing with grazing; cut high (>8cm) to avoid excessive removal of stem material. If closing early, then this will increase biomass at typical closing date, so consider reducing early N applications to avoid bulking up the crop and manage growth with PGRs. (See [below](#) for more advice on this topic.) Newer genetics may respond differently, so consider these when making any changes to management. *(Donna Lill, FAR Regional Facilitator)*

Mid Canterbury

Autumn-sown crops have come through a very good winter looking strong, while good lamb prices are a welcome boost. The warm start to spring means growers are keeping a close eye on aphids and deciding whether cereal crops require a T0 fungicide. Ryegrass seed growers are also finalising grazing and closing dates, alongside spring nitrogen applications. With greater weather variability expected through spring, use soil moisture data to guide irrigation and avoid refilling soils to field capacity; leave room for rainfall and make sure irrigation systems are ready before demand increases. *(Cindy Lowe, FAR Regional Facilitator)*

South Canterbury

Recent drops of rain have ensured that paddocks are now at field capacity. Provided there is a bit of rain in November/December, the crops should be in a good spot. Elsewhere, growers are planting spring crops, shearing lambs and completing spring fertiliser programmes or undertaking some timely farm maintenance. *(Philippa Rawlinson, FAR Regional Facilitator)*

South Otago and Southland

It is shaping up to be yet another wet spring in the south which is providing some stressful growing conditions to manage. Growers are having to choose weather windows carefully to get herbicide and fertiliser applied as best they can. Damp soil means preparation for spring sowing is still some way off, although with a few warm days, there is optimism that this may not be pushed as late as last season. *(Nicole Foote, FAR Regional Facilitator)*

Crop management

General

Beginning irrigation

Despite some growers' expectations, soil moisture levels remain okay for now. Nevertheless, irrigators have been spotted running on the Canterbury Plains (mostly on dairy farms), and it won't be long before they become an increasingly common sight.

Knowing your soil type and water holding capacity (WHC) helps with decision making around when to start irrigating. 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 this week's FAR Field Walk](#). (See p22)

Improving sprayer productivity

FAR recently completed a popular round of sprayer workshops with some visiting Canadian speakers. One useful tool that we have been made aware of is the [productivity calculator](#), which can allow growers to analyse their setup under different scenarios to see how this will affect sprayer efficiency.

Read a FAR technology update about this productivity calculator [here](#).

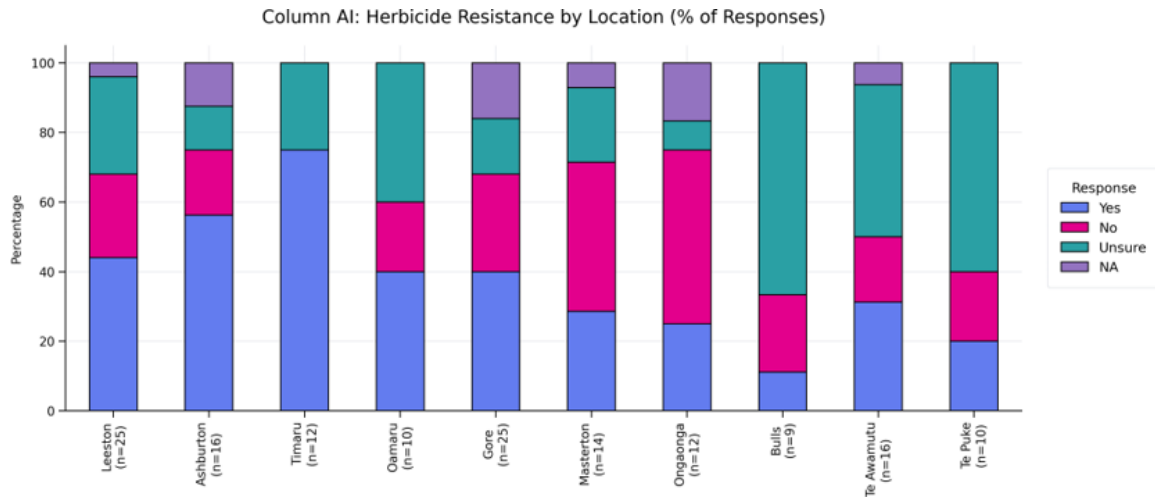
The speakers from the workshops have written an article detailing what they learned about the New Zealand system, along with some considerations for improving sprayer productivity in our systems. You can read it [here](#).

You may also be interested in recent FAR podcasts on sprayers from August 19th and 25th of this year, both of which can be found [here](#), or in your usual podcast app. Search for "Cut the Crop".

Spring weed management

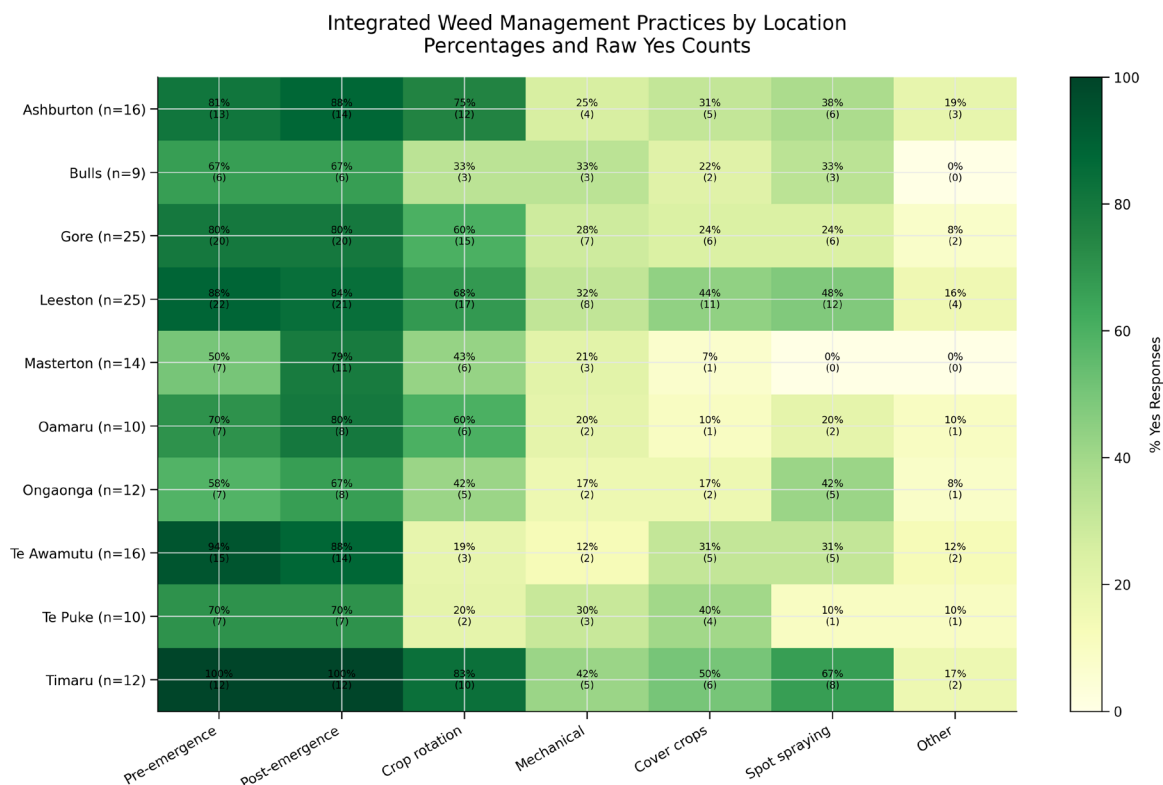
Sprayer workshops were recently followed by a series of WeedSmart NZ Integrated Weed Management (IWM) workshops across the country.

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.



Alongside ongoing detection of herbicide resistance in FAR's 2026 annual weed and herbicide resistance surveillance programme, this suggests 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.

A heat map showing 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, we will be following these recommendations by 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.
- A selection of FAR technical reports on integrated weed management. Click [here](#) to see what's available.
- [Booklet](#) from FAR's recent WeedSmart workshops.

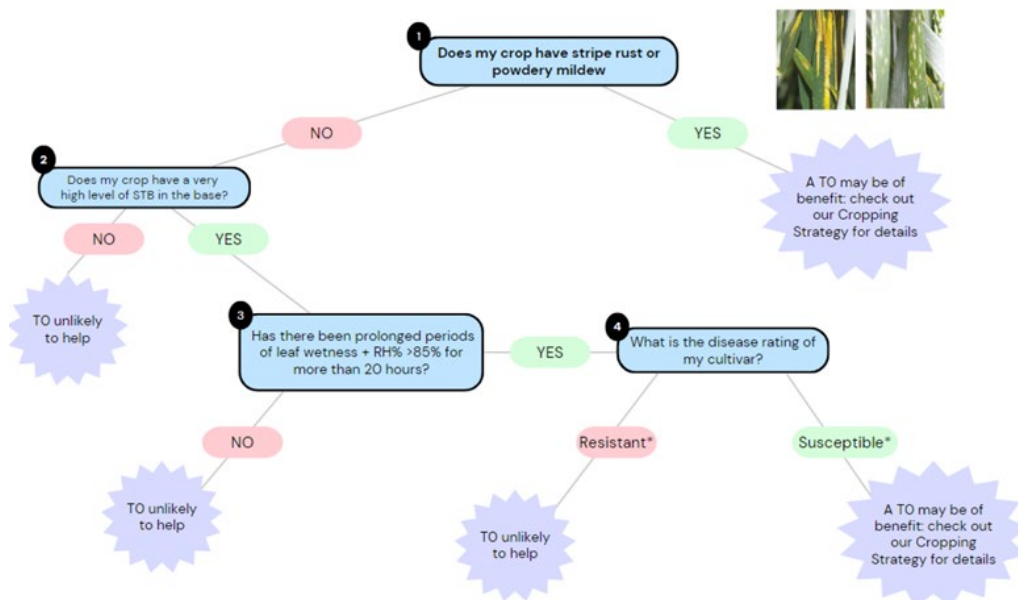
Cereals

Does my wheat need a T0 fungicide?

The end of winter has been relatively warm, and with enough moisture around, some growers may be considering an early fungicide. There may also be some growers worried about a possible windy season ahead, that could make later spraying difficult.

T0 fungicides (applied around Growth Stage GS 30-31) are rarely economically justifiable, with FAR trials repeatedly giving Margin-over-Cost (MoC) results that favour skipping the T0 spray ([see Arable Update 231](#)). There can be some situations where a T0 is justified, namely if stripe rust or powdery mildew is present, but in most situations the natural resistance of the cultivar should be what gets you through to the T1 timing (GS32). FAR has produced a decision tree to assist with planning, which is reproduced below. For a more detailed breakdown of your options, refer to [Arable Update 219](#). The Cropping Strategy publication can be found [here](#).

Will I benefit from a TO?



Fungicide resistance

Remember also that there is another compelling reason not to use a fungicide unless you need to: fungicide resistance. The more times a disease population is exposed to a given active ingredient, the more chances it has for resistance to develop further. Many fungicides limit the number of times it can be used per season (including seed coatings), so being mindful of this is an important aspect of preserving our valuable fungicide chemistry for future efficacy.

Aphid monitoring

FAR's aphid monitoring is now being carried out fortnightly, but with the regions being staggered across that two-week period, there is always somewhere being monitored each week, so keep checking back regularly at [Aphid Chat](#).

Data from monitoring shows that aphid flights have not yet begun anywhere in the South Island, and any possible wingless colonies that managed to over-winter are very difficult to find. The presence of significant numbers of beneficial insects in some crops suggests that there may be some about, though.

So far this spring, there have definitely been some warmer days, but historical data shows that weekly average temperatures are not much higher than normal – certainly we haven't seen a warm "spike" like we experienced last year around the end of September. We will keep a close eye on temperature anomalies over the next month so we can give timely advice on when (or if) an insecticide may be justified. Some growers have decided not to wait, however. Given the difficulties of last season and the warm days, the "insurance" of a foliar insecticide has been deemed important, especially if it can be tank-mixed with a fungicide or herbicide that would be going on anyway, saving on application costs. If spraying, FAR urges growers to consider using a product that is soft on beneficial insects, so that aphid populations don't build up as quickly afterwards.

Herbage

Spring nitrogen on ryegrass seed crops

[Spring nitrogen requirements for ryegrass seed crops](#) are generally set at about 175 kg N/ha, minus however much may be supplied by the soil throughout the season (often estimated at about 20-30 kg N/ha). Some growers have asked whether this holds true for newer cultivars, many of which produce significantly more vegetative tillers. The assumption could be that this would mean an extra requirement for nitrogen and certainly, these crops can look hungrier in spring and it can be tempting to add more N. However, at this stage, we just don't know.

Information to date suggests that N timing may be more important than N rate. This makes sense given FAR research suggests that earlier closing dates can raise seed yield (see below); but it's a balancing act: encouraging good growth for later partitioning into the seed without pushing an increase in late vegetative growth that will reduce seed yield. Our recommendation is to contact your seed company to discuss a strategy.

FAR research

In the meantime, FAR is in the final year of a three-year study on improving seed yield of the so-called "low aftermath heading" varieties, which produce more vegetative tillers, especially after the usual harvest window has concluded.

The first year of the study (yet to be published) showed that keeping the crop grazed (or topped) through late winter and up until closing was important. Early closing dates yielded much better than late ones, so long as lodging wasn't an issue. The risk with adding extra nitrogen to compensate for extra tillering is that it could increase lodging, which decreases seed yield.

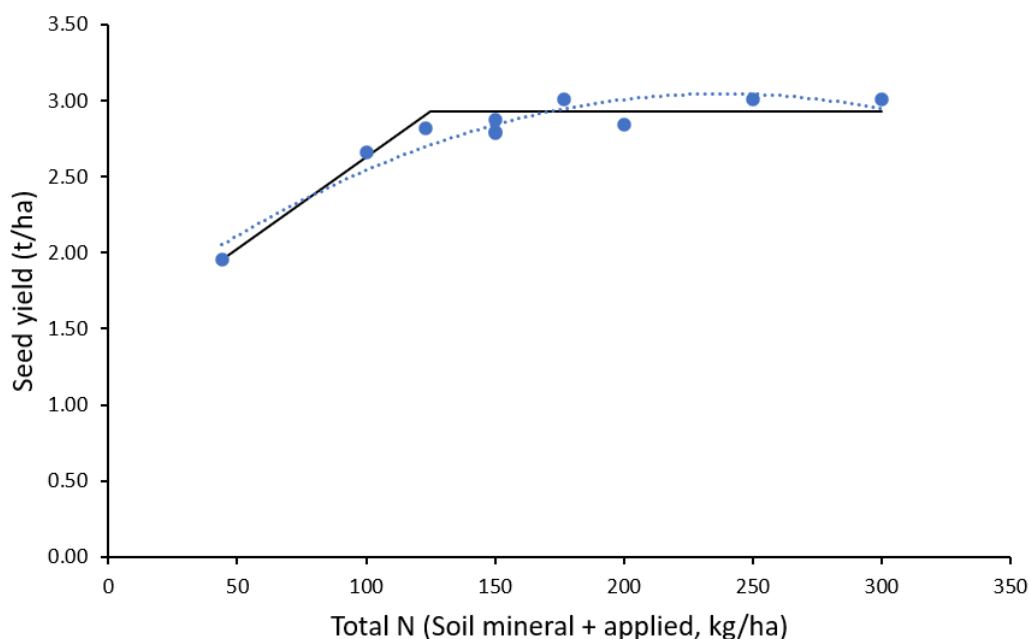
The second year's trial investigated whether the early closing could be compensated for with higher PGR rates. This time, early closing had no effect on yield. PGR rate also had no effect on yield, except at very low rates, which led to the lowest yields in the trial (unsurprisingly).

Partly due to the uncertainty around these second-year results, the trial is being repeated this season, with some adjustments. As stated above, the best first action is to talk to your seed company representative.

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, next page) 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, with another one at closing (around the end of October) and then a further application a month after closing.

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



Maize

Soil testing before maize planting

With the maize season rapidly approaching, now is the time to think about crop nitrogen (N) requirements and, importantly, measure how much N your soil can supply. N supplied by the soil is the cheapest N available. **Plan to use it or lose it.**

Fertiliser N is typically either applied prior to planting (all up front) or split into a planting application and a side-dress application. Soil testing can be used to adjust fertiliser rates for either of these approaches.

Some maize-specific considerations:

- Sampling the top 30cm of soil is ideal, but down to 15cm will suffice. A 15cm sample often underestimates the available N.
- Sample two-three weeks before application is planned.
- When sampling after planting, sample between the rows to avoid any N applied at planting.

Mineralisation is carried out by soil microbes as they break down organic matter, releasing N that can be taken up by the maize crop. Microbial activity is driven largely by soil temperature and moisture, so N release varies throughout the growing season.

Mineral N can change considerably with rainfall and other conditions, making the timing of soil testing important. PMN is much more stable and, once soils have been cropped for two years or more, generally only needs to be measured every three years.

Even on old, long-term cropped soils there can be worthwhile savings. At a long-term cropped FAR research site, mineralisation can still contribute more than 50 kg N/ha during the maize growing season, worth approximately \$140/ha at current SustainN[®] prices. A mineral N test shortly before side-dressing, following annual ryegrass, identified a further contribution of more than 80 kg N/ha. Together, the soil could supply more than 130 kg N/ha. These figures are from the lowest soil N-supplying treatments at the site, so provide a deliberately conservative example.

Planting to reduce fall armyworm (FAW) risk

As planning continues for maize planting this season, it is worth considering what you can do to reduce FAW pressure. Over the past three seasons, the most 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.
- **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

Join our upcoming webinar for more information on crop scouting for FAW and preparing for the season ahead. [Register here.](#)

Oilseed rape

Tebuconazole on oilseed rape crops

Tebuconazole (a Group 3 fungicide) is widely used in oilseed rape as both a fungicide and a plant growth regulator (PGR). When applied at stem extension, particularly at the green bud stage, it helps shorten and strengthen stems, reducing the risk of lodging later in the season. The growth-regulating effect creates a more open, balanced canopy that allows greater penetration of sunlight into the lower crop layers, improving pod retention and productivity throughout the canopy rather than concentrating yield only in the upper branches.

The key benefit of improving crop architecture is better standing power during flowering and grain fill. Crops that remain upright intercept more sunlight, maintain greener lower leaves and pods, ripen more evenly, and are easier to harvest. In addition to reducing lodging risk, tebuconazole can improve seed set and pod productivity in lower canopy layers by reducing excessive stem growth and improving biomass distribution within the crop.

TEBUCONAZOLE IN OILSEED RAPE					
Optimal timing for growth regulation and lodging control					
GAI (Green Area Index)	< 0.5	0.5	1.0–2.0 OPTIMAL TIMING	2.0–3.0	3.5–4.0
					
GROWTH STAGE	Rosette	Early stem extension (< 10 cm)	Green bud (main stem 20–25 cm)	Early yellow bud	Start of flowering
TEBUCONAZOLE TIMING	Too early – minimal growth regulation benefit.	----->	BEST TIMING Apply at green bud for maximum stem shortening and lodging control.	Later – more emphasis on disease control and less on stem shortening.	Too late for growth regulation benefit.
APPLICATION STRATEGY	Do not apply to crops under stress or with low biomass (GAI < 1).		SINGLE APPLICATION 1 spray at green bud.	SPLIT APPLICATION (for lush, forward crops) 1 st spray at green bud followed by 2 nd spray 10–14 days later at late yellow bud.	
TEBUCONAZOLE RATE (Active Ingredient) per application	 GROUND SPRAY 0.4 – 0.6 L/ha (430 g/L formulation)		NOTES • Use higher rate (0.6 L/ha) on tall, dense or high biomass crops. • Adjuvant (e.g. Ezicover) recommended for best results. • Always follow product label and local recommendations.		

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.

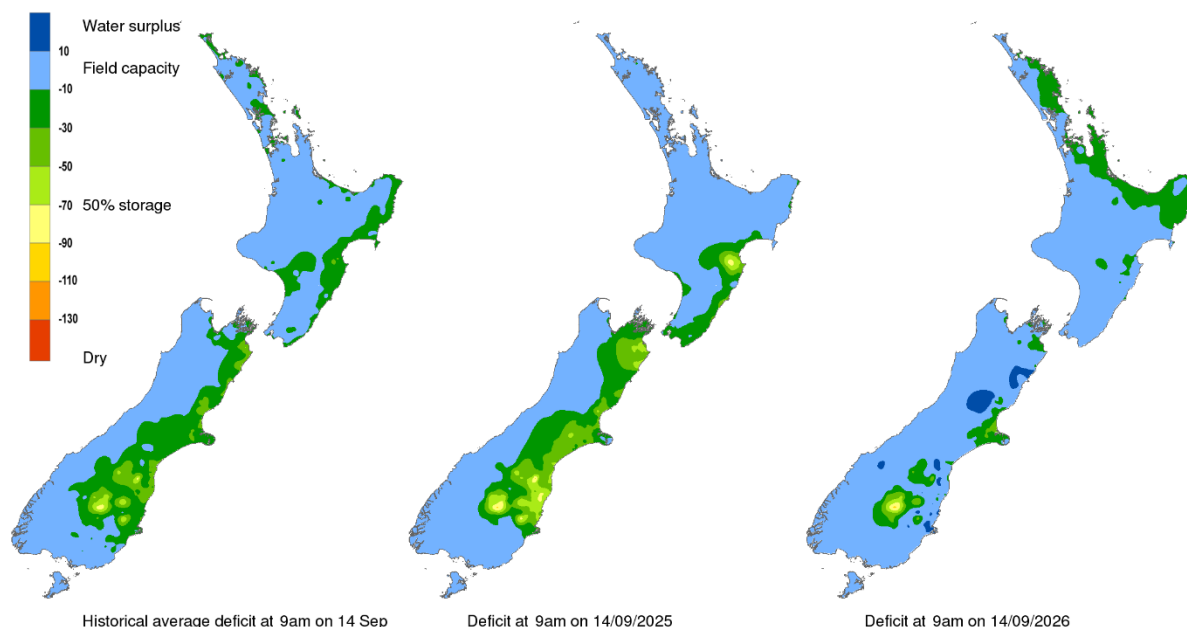
For more on what looks likely to be one of the strongest El Niño events on record, click [here](#).

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 14/09/2026



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