Crop Action

Issue 19 Sunday 12 October 2025

In this issue of Crop Action:

Editor's note

Welcome to another spring edition of Crop Action. As always, our aim is to bring you the most relevant information around what is happening on your farm right now, whether that be disease or pest risk assessment, weed management, or spring nitrogen calculations. If there is something you would like covered that we might not have thought about, please do get in touch with the editor (contact details can be found at the end of this publication). Alternatively, if you haven't yet tried FAR AI, we have now made it even easier to find answers to your arable-based questions. You can now access the same knowledge in an app on your phone! The FAR AI searches FAR research documents to answer your arable questions. **Here are the steps to access it:**

1. **Download** What's App from the App Store.
2. **Add** the Ask FAR AI to your phone contact list: **+64 27 277 2536**
3. **Open** What's App and search for Ask FAR AI.
4. **Type** in your arable question and wait a few seconds for the answer.
5. **Done** (only you can see the question and answer).

Regional Updates

Southland

The weather over the past few weeks has been wet and windy. Large parts of Southland and South Otago are wetter than is ideal and would welcome some sunshine; for growers it feels a bit like spring 2024 all over again, with mounting pressure to get key jobs like spraying and ground prep completed.

I look forward to seeing growers at the Spring Walk on the 14 October…if the weather allows for time off-farm. After the talks, there will be a BBQ kindly provided by PGGWrightson and Ballance Agri-Nutrients. *Nicole Foote, FAR Regional Facilitator*

South Canterbury/North Otago

The 20–40 mm of rain that arrived over the weekend was welcome after an unusually dry August and September. Most growers have completed their T1s or are in the middle of them now. Many managed to get urea applied ahead of the rain. Cereals sown earlier in autumn are now sitting at GS31 and mostly looking okay. One grower has identified quite a large and sudden influx of wingless aphids which will need attention. Overall, the outlook in the arable sector around South Canterbury and North Otago remains subdued, but at least the weather seems to be cooperating for now. *Jo Fearn, FAR Regional Facilitator*

Mid Canterbury

Irrigators are now running across much of Mid Canterbury. However, with evapotranspiration rates still relatively low at around 2–3 mm per day, there's no need to run irrigators flat out just yet. Most spring-sown cereals and seed crops are establishing well, and the odd rainfall has helped maintain soil moisture levels. Soil temperatures are sitting at 10-11°C at 9 am, providing a solid base for continued crop growth.

Now's a good time to start regularly scouting paddocks for weeds, especially those that may have slipped through early spray programmes. There have been several high-risk days for stem rust, so keep a close watch on cereal and grass paddocks and consider a fungicide if necessary. Check the latest *Arable Updates* for guidance on choosing the most effective fungicide programme.

Many growers are reporting reduced aphid numbers compared to last spring, thanks to the cooler temperatures; this should help reduce early spring virus pressure in emerging crops. However, this does not seem to be a universal experience, so check your own crops, particularly cereals if they are between GS 21 and GS 32. *Cindy Lowe, FAR Regional Facilitator*

Northern South Island

The rain in the first weekend of October has again held up spring drilling for those with heavy ground and the goal of getting all the spring drilling completed by October 18 (Ellesmere A&P Show) may not be met this year! Always looking for an upside – the delayed drilling dates and changes from autumn to spring cereals may give growers a chance to address weed issues at different times this season then they would normally do in an autumn-sown cereal. Many growers, however, are all planted, and the regular showers are keeping soils topped up.

The focus is shifting to crop health with spray and fertiliser programmes. Autumn wheat is around GS30-31, with PGRs approaching. Spring wheat is not yet at row closure.
Spring growth in ryegrass doesn't seem to have been rapid, but is now being closed and rolled. With lambs heading away at good weights and pleasing prices. *Donna Lill, FAR Regional Facilitator*

Southern North Island

Growers are waiting patiently for the ground to dry out and warm up before planting can get underway in the region. While some managed to plough maize paddocks before the rain, planting is not yet underway after a very wet week and cold period.

Maize is starting to be planted in the Rangitikei region, with some big areas already planted. Others have sprayed out some of their fields and are waiting for suitable ground conditions to get on the rest. August was very dry (200mm behind annual rainfall) but recent rain has brought levels up onto normal levels in the Rangitikei. Growers are hoping to get into cultivation this week.

In Hawkes Bay, ground conditions are great for cultivation, with the region receiving some good rain last weekend. Planting is a bit slower than usual due to cold conditions, but some strip-till maize crops were planted this week. Winter wheat looks great. Spring sown crops freshened up post rain. *Megan Cushnahan, FAR Regional Facilitator*

Northern North Island

Wet weather and wet soil are common themes for the top half of the North Island. Preparation for spring planting is around two weeks behind usual in Waipu, while windy, wet and cold conditions means only 20ha have been planted around Dargaville. In terms of area being planted, locals are estimating

similar areas as last year for maize silage, and slightly less for maize grain. Also around Dargaville, autumn-planted barley for November harvest is looking good on some farms.

Waikato has been experiencing very challenging conditions, colder than ideal soil temperatures in mid to South Waikato. The main challenge is soil moisture, even with drying days the soils are very wet. Strip tilling is underway but behind, there are concerns about poor germination due to wet conditions. Some growers are choosing to wait on planting rather than risking rot and/or germination issues. *Rachel Mudge, FAR Regional Facilitator*

Crop management

General

Getting the most out of soil test results

Mineral N (plant available N) is free, so including it in your fertiliser decision making can save you money. Mineral N is also highly mobile, so, if your crop doesn't use it, you're likely to lose it. Soil testing is the start of your fertiliser decision making process. Understanding your soil test results is the next step.

The previous issue of Crop Action contained a detailed breakdown of how to use your soil test results, which can be found here. Links to FAR's calculator and a video about how to use it can be found below.

- https://www.far.org.nz/resources/soil-nitrogen-supply-calculator
- Watch a step by step video on how to use the calculator here.

Cereals

Spring disease management

Autumn-sown cereals are now at or approaching T1 fungicide timing across the country, although some will already be past this point. The extent to which disease develops in a crop is a balance between disease pressure and field resistance. Disease pressure for *Septoria tritici* blotch (STB) varies between seasons and is determined by the amount of inoculum present, weather conditions and region. The key weather indicators for disease pressure are wet weather and high relative humidity (>85% for 20 hours or more) between the start of stem extension (GS 30) and the end of ear emergence (GS 59), especially during October and November. By monitoring weather conditions during this period, growers can determine disease pressure and an appropriate disease management programme. Field resistance is determined by cultivar and crop management (sowing date, stubble management, etc).

The tables below can be used to estimate the length of time between a risk period and the first STB symptoms appearing. Use Table 1 to look for risk periods in your region, then add the latent period from Table 2 to find the optimum time to spray for STB.

Additional resources:

- Latent arable updates on fungicide resistance and management:
  - Cereal Update 232
  - Cereal Update 233
  - Cereal Update 234
  - Cereal Update 235
- 2024 Cereal disease management strategy
- Cut the Crop

Table 1: Risk periods (relative humidity periods (RH>85%)) for the past four weeks (September 9th 2025 to October 7th 2025) for key cereal-growing regions of New Zealand. Risk periods are represented by red boxes.

Date	September																					October						
Site	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7
Methven																													
Wakanui																													
Timaru																													
Fairlie																													
Gore																													
Levin																													

Table 2. Latent period (days) of STB from September 9th to October 7th 2025.

	2025	**2024**
Methven	27	25
Wakanui	24	24
Timaru	29	25
Orari	29	26
Gore	30	29
Levin	21	21

Table 3. Total precipitation in mm from September 9th to October 7th 2025.

	2025	**2024**
Methven	65	49
Wakanui	27	43
Timaru	41	68
Orari	46	108
Gore	109	121
Levin	77	58

Aphid monitoring

We are now into the most crucial time of year for aphid management in autumn-sown cereals for aphid management. Once crops reach GS 32, they are generally considered past the point where foliar insecticides are economically viable for control of aphid-vectored viruses. Before this point, if aphids are spreading throughout the crop, an insecticide can be considered. Spreading (secondary infestation) is by way of winged aphids, which form from wingless colonies when conditions are right and colonies of winged aphids become so large that they need to find new plant hosts. Monitoring has begun to more regularly find colonies of wingless aphids now (see photo below), with winged aphids sometimes present.

With prolonged periods of settled weather, these aphid colonies could present a risk if the crop is not yet at GS 32. However, every time a cold, wet, windy southerly comes through, these colonies will be knocked back, which can buy time for the grower. A healthy population of beneficial insects will also delay secondary spread.

In any case, if your autumn-sown crop is not yet at GS 32 and you think you may have an aphid problem, check out our website at Aphid Chat to see what the situation is in your region, as well as access some useful information on the topic.

Above left: wingless aphids with one winged aphid on a wheat plant at Lincoln, Canterbury**. Above right:** wingless aphid colony on a wheat plant at Lincoln University, Canterbury, showing young aphids being born by parthenogenesis. Photo credit: Catherine Harper.

Herbage

Sow thistle management in white clover seed crops

FAR has received some reports of sow thistle (*Sonchus* spp.) weeds becoming a problem in white clover seed crops. This is also true of the long-term cultivation trial at FAR's Chertsey site, which is in white clover this season. The photograph below shows the weed emerging on bare ground between clover plants. Note the appearance of a seedling and a mature plant. The main herbicide treatments for sow thistle such as Agritone (MCPA, Group 4) usually go on in winter (see FAR Annual Research Report 2020/21 p57), but follow-up sprays are often required around now. At Chertsey, we applied Tropotox™ (mixture of MCPA and MCPB, both Group 4) this week at 4L/ha, and will follow up later in the month with paraquat (Group 22), which will also assist in managing some of the other weeds such as speedwell (*Veronica persica*).

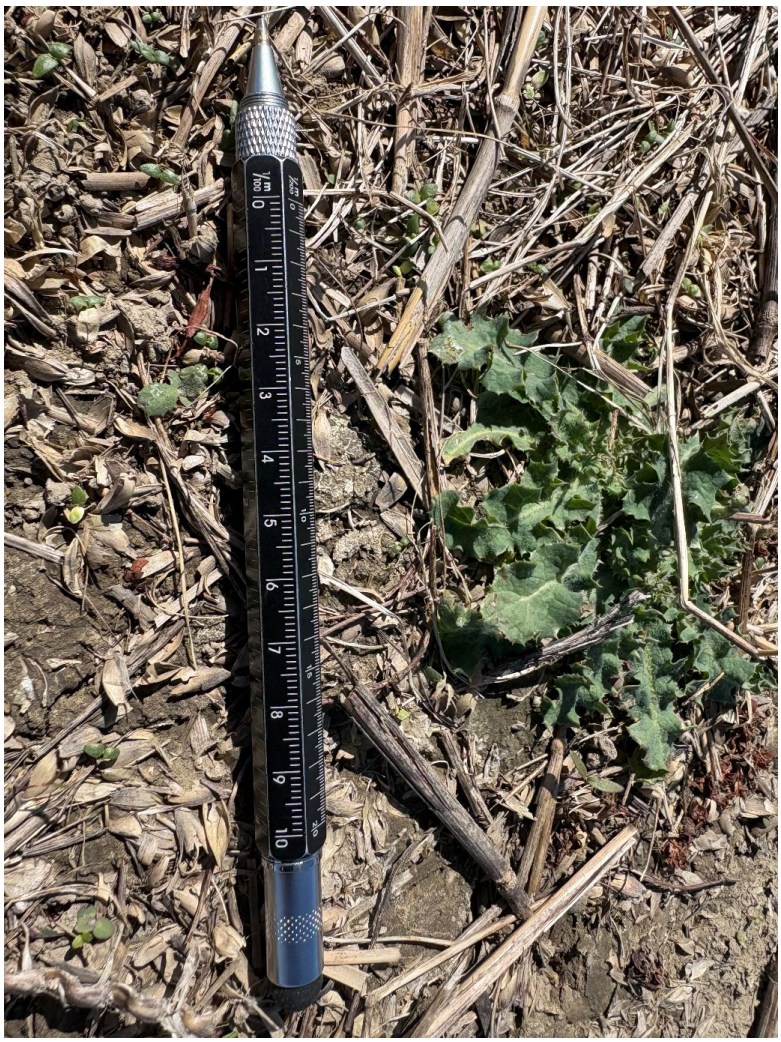


Photo showing a recently-emerged sow thistle (left) and a more mature specimen (right). Photo: Owen Gibson.

Managing new ryegrass cultivar closing dates

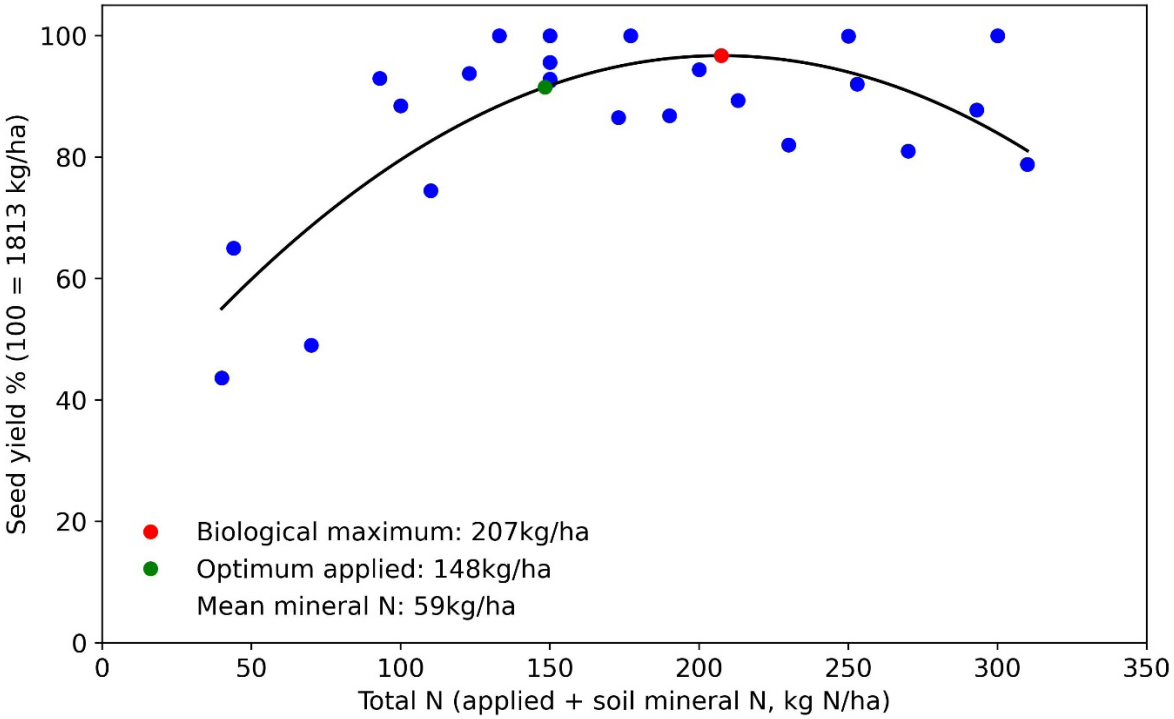
Many newer forage varieties of perennial ryegrass have been bred for forage quality through summer and unlike older varieties do not continue to produce reproductive tillers after the first spring flush of seed heads. This change in genetics means they are likely to be managed differently in order to optimise seed yield.

FAR (and seed company) research into understanding the changes required is continuing, but in trials to date, the biggest seed yield gains have come from trial plots which have been hard grazed through late winter and spring up until closing, with early closing also possibly playing a role. Check out this video on the topic from FAR researcher Owen Gibson.

Nitrogen on plantain seed crops

In recent years, FAR has conducted research on the optimal rates and timing of application for nitrogen fertiliser on plantain seed crops. Results show an optimum applied N rate of around 150 kg N/ha (Figure 1), beyond which economic returns on applied N begin to diminish. There is a strong correlation ($r=0.86$, $P<0.01$) of improving seed yield with increasing total N up to 150 kg N/ha.

The first application of N is usually at the start of October, with another one at closing (around the end of October depending on cultivar flowering date) and then a further application a month after closing.



Maize

Fall armyworm

With maize planting happening this month, growers are gearing up for another season of fall armyworm (FAW) management. It's important to stay ahead of this troublesome pest, and FAR has developed a new tool in the fight). The website www.fallarmyworm.nz is your hub for the latest updates, practical information, and resources to support crop management this season.

We are proud to host a new video, *How to Find and Identify Fall Armyworm*, created by Better Border Biosecurity (B3) summer student Jordan Pickering. You'll find this on the FAW website under Additional resources, alongside the FAW webinar recording – available for those who missed the live session or wish to revisit it.

Check in regularly for timely insights to help guide your decisions through the season.

Pre-emergence herbicides in maize

Getting the most out of your pre-emergence herbicides requires an understanding of the factors that can affect how successful they are. The first step is to have an idea of what weeds are likely to come up based on paddock history, and whether there has been any history of herbicide resistance, either in the paddock or in the area. As always, it is important to use a range of herbicide Modes of Action (MoAs – 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, or else they 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 broadleafs 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 broadleafs 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®, Primiera®	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

Some maize planting is underway in parts of the North Island, as soil temperatures warm up. Others will be planning for this and cultivating in readiness.

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).

Planting early in the season does have advantages; these include early flowering, which is particularly advantageous in years where the risk of drought stress is high. 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, because of the slower earlier growth, planting early can result in the need for greater weed control because row closure is slower.

Tillage can also have an effect on soil temperature. Cultivation tends to increase soil temperatures compared to no-till, and 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, 6/10/2025) for some key maize-growing regions in New Zealand. Also shown are the temperatures for the same time period last year.

Region	Station	Soil Temp (°C)	2024 Temp (°C)
Northland	Kaikohe	13.6	14.7
Waikato	Rukuhia	16.7	15.1
Bay of Plenty	Te Puke	13.3	14.3
East Coast	Gisborne	14.1	15.0
Hawke's Bay	Havelock North	15.0	16.1
Manawatu	Levin	13.3	14.8
Canterbury	Lincoln	10.3	10.9
	St Andrews	8.4	12.0

Oilseed rape

Fungicide application

OSR flowering is time to consider fungicide applications; mainly to control *Sclerotinia*. 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 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.

Available fungicide flowering sprays for sclerotinia control
Based on oversea labels

Product	Type	Active	Rate
Aviator Xpro	Azole + SDHI	bixafen + prothioconazole	600-800 mL/ha
Proline	Azole	prothioconaozle	400-500 mLha
Amistar	Strobilurin	azoxystrobin	500 ml/ha
Prosaro	Azole + Azole	prothioconaozle + tebuconazole	600-800 mL/ha
Chief or Protek	MBC	carbendazim	500 ml/ha

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 been conducting research on alternative pollinators for these kinds of crops. One such pollinator, the drone fly (*Eristalis tenax*), has shown to be more effective than honey bees in some respects. Drone flies are cheap and easy to manage, and they work well alongside honey bees for pollination, since 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 weather outlook

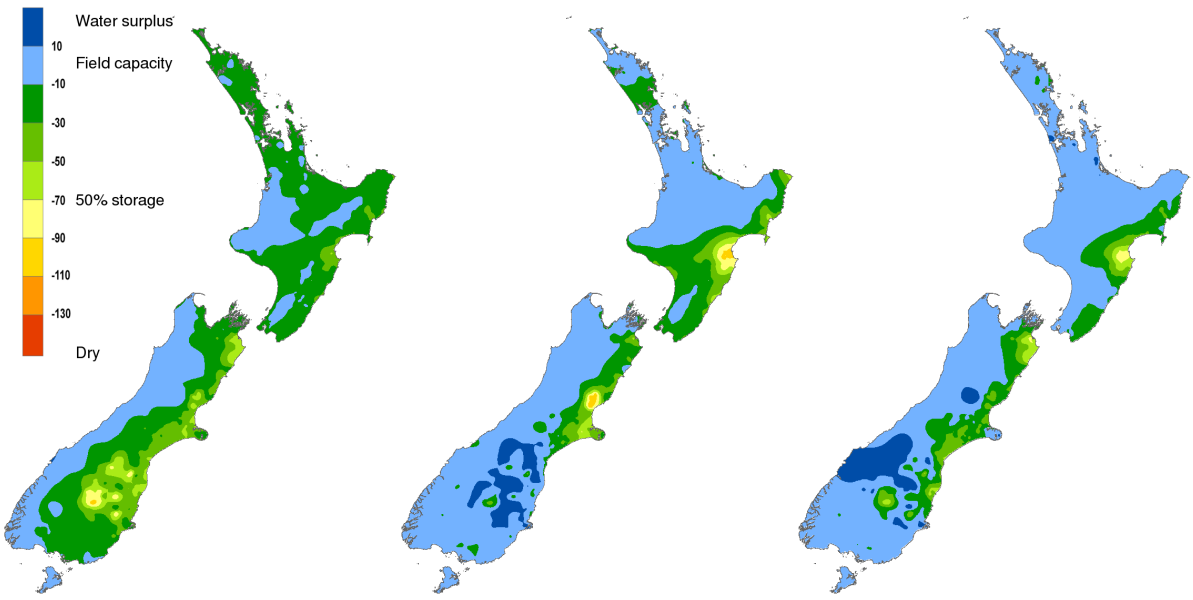
According to the climate outlook from ESNZ, New Zealand as a whole could be in for a wetter October due to some activity over the South Pole that has affected weather patterns. Storms are more likely than usual throughout October. Things are predicted to become more settled as the month (and the season) progresses, but the possibility of heavy rainfall events remains elevated, particularly for the North Island. Air temperatures in the far north are expected to be above average, while the remainder of the country will be either average or above average. Rainfall should be close to the historical averages in most places, except for the east of the North Island and both coasts of the South Island, which are equally likely to experience either normal or below normal rainfall totals. The far north will either be wetter than normal, or average.

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. 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 NIWA here.

Soil moisture deficit (mm) at 9am on 05/10/2025



Historical average deficit at 9am on 5 Oct | Deficit at 9am on 05/10/2024 | Deficit at 9am on 05/10/2025

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