Issue 21 Sunday 9 November 2025

In this issue of Crop Action:

- Cereals: Spring disease management and Aphid monitoring
- Herbage: Cocksfoot diease management, Stem rust managemet and Irrigation management for browntop seed crops
- Maize: Fall armyworm update, Planter set up and Crop status and side dressing
- Weather updates:long term climate outlook, weather tool and soil moisture data

Editor's note

There is a lot happening on the farm at the moment. However, we do hope you can find the time to attend some upcoming FAR events. Our larest event of the year, <u>ARIA</u> (Arable Research in Action) is being held on Wednesday, November 26, at the research site near Chertsey. Come and hear international speakers, such as Nicole Anderson from the Norwegian Institute of Bioeconomy Research, speaking about rapid measurement of grass seed moisture content. There will also be presentations from New Zealand researchers, including FAR staff with the latest in FAR research. You can find the <u>full ARIA programme</u> here.

Canterbury growers are invited to join the Northern South Island Arable Research Group (ARG) for a visit to the Advanced Feed Mill near Methven for insights into dairy sector grain use. The visit is on Tuesday, 19 November, and includes a BBQ lunch supplied by Carrfields. More details <a href="https://example.com/here-burger-burg

Those in the Hawkes Bay area are invited to a field walk with FAR's senior maize researcher, Rene van Tilburg on Friday, 21 November. Details can be found here.

Canterbury research site updates

Warm, windy weather has caused notable moisture deficits across all crops at the Chertsey and Kowhai research sites. High water use and evapotranspiration have led to visible stress in the un-irrigated wheat

plots. The autumn wheat at Chertsey and winter barley at Kowhai are generally looking good, with only low levels of disease showing in the wheat CPT nil-fungicide plots.

Winter barley is now at full ear emergence and moving into grain fill. Bird deterrents are being set up at Kowhai to reduce losses from sparrow and greenfinch feeding. The commercial winter barley at Kowhai has struggled this season, mainly due to a very wet winter that delayed fertiliser applications and reduced head numbers. From April to October, Lincoln received 517 mm of rainfall compared with the long-term average of around 400mm.



Figure 1.Variable PGR application map for the 1st application in the future farm block at Chertsey. Rates of Moddus® Evo (250 g/L trinexapac-ethyl) range from 0.4 L/ha (red) to 1.6 L/ha (green).

All ryegrass trials are now closed, with PGR and nitrogen management the main focus. The Future Farm trial at Chertsey, sown in 'Three⁶⁰' perennial ryegrass, highlighted how challenging it can be to direct-drill small-seeded crops into heavy wheat residue. However, it's been a good opportunity to demonstrate split, variable-rate PGR and nitrogen applications by drone. The first PGR spray is scheduled to be applied from 7 November, with a second round planned for the week of the 17 November (Figure 1).

Overall, this season is shaping up to be a warm, dry spring and summer. A good rainfall in the next few weeks would be valuable to support our crops through anthesis and sustain them into grain fill.

Regional updates

Southland

After a few wet and windy weeks ground conditions have turned around and growers are spending some long days catching up on sowing, spraying and fertiliser application. Spring crops are generally looking very good.

There is pressure on crops from *Septoria* and growers need to ensure they are adjusting their management programmes accordingly. GS 39 (T2) is the most economically important timing but windy conditions mean getting fungicide applications timings right will be a challenge for many. A cultivar with at least intermediate tolerance to STB will provide some flexibility, if you aren't able to get the GS 39 timing spot on.

See <u>article below</u> for more details, but ultimately, this upcoming application will represent the biggest spend of the season and will likely include an SDHI (Group 7) with a triazole (Group 3) mixing partner. It's important to use a different triazole than what was used at the GS 32 application.

Remember to take care around fallen and unstable trees and reach out to neighbours, friends or the Rural Support Trust if you need any kind of assistance. Get in touch with me if there is support that FAR can provide you. *Nicole Foote, FAR Regional Facilitator*)

South Canterbury/North Otago

Crops are progressing well and crops are generally looking clean. Wheat is now at full flag leaf (GS 39) so T2 fungicides are going on. Barley is moving into the T3 fungicide timing.

Weed pressure remains low overall, with pre-emergence treatments performing well this season. Most growers are focusing on rogueing and spot spraying to tidy up problem areas. Moddus® applications are going on to turf grass seed crops slightly earlier than usual.

Crops are looking strong and well set up heading into summer, although soil is beginning to dry out and some moisture would be welcome to keep crops moving through the critical grain fill stages.

Oilseed rape crops are showing the effects of the recent hot, dry, and windy conditions. Some plants are beginning to show signs of stress, with the wind also taking a toll on flowers as crops reach the end of the flowering stage. If the dry spell continues, the risk of *Alternaria* and mealy aphids will increase, so keep a close eye on crops over the coming weeks. *Jo Fearn, FAR Regional Facilitator*

Mid Canterbury

Late-sown crops have largely caught up thanks to the recent warm spell. Keep nutrient supply consistent, as well-fed crops are more resilient to wind and other adverse weather conditions.

Most cereals are now at flag leaf, with growers focusing on completing T2 fungicides. Timing will depend on individual T0 - T2 strategies and current disease pressure, which has eased somewhat under the recent dry, windy conditions. Those same winds have made keeping up with spray and fertiliser programmes challenging, so planning around calmer weather windows remains critical.

Maize planting is underway with good planting conditions across the district. *Cindy Lowe, FAR Regional Facilitator*

Northern South Island

The windy spring has everyone on their toes trying to keep up with spray and fertiliser programmes. The wind storm in late October caused significant damage for the cropping farms in the Amuri Basin, leaving these growers facing months of clean-up and repairs.

Crop health decisions are front of mind, though growers are reporting little disease pressure currently. Forecast dry and windy conditions may help keep disease pressure low.

Peas: recently drilled crops are emerging well. Monitor for weeds closely and apply herbicides promptly if needed. Decisions on pre-flowering fungicides will be due over the next month.

Wheat: most crops are approaching GS 39 (T2). Where T1 sprays were applied more than 28 days ago growers are considering whether a straddle spray is justified to maintain disease control.

Winter barley: most crops have received their T2 spray which may serve as the final fungicide for the season. Growers should assess whether a T3 application will deliver an economic return. Spring barley crops have had T1 fungicides.

Ryegrass: has been closed and nitrogen and growth regulator applications will be completed soon.

Clover: crops are looking strong. Growers still considering topping should act quickly - FAR research has shown that reducing bulk in November can lower seed yield (despite the old adage was that this should be completed before Canterbury show day).

Maize: planting is underway and pre-emerge herbicides are being applied.

Growers are reporting seeing a different weed spectrum this year than they would normally expect – chickweed and fumitory being two examples that growers have noted. Monitor all crops over the next month to assess effectiveness of herbicide programmes. Manage any weeds that have escaped herbicide programmes and reduce seed set by rogueing, spot spraying or mulching/silaging. Watch old fence lines in amalgamated paddocks, these can be weed hot spots.

Irrigators are keeping pace with crop demand at present, but warm dry weather will increase pressure over the coming weeks. *Donna Lill, FAR Regional Facilitator*

Eastern North Island

Maize planting is largely complete and growers in Gisborne and Wairoa are applying pre-emergent herbicide applications in the calmer conditions. Some wind damage has been noticed on crops that emerged before the recent storm, but they should recover. Autumn-sown wheat has performed very well this year. Pea and barley plantings are complete and the growers spoken to this week have also cmpleted spring wheat planting. *Megan Cushnahan, FAR Regional Facilitator*

Southwestern North Island

It's been a huge week for planting in the SWNI region after a long period of cold, wet conditions. Growers have taken advantage of the fine weather and about 80% of the maize in the Taranaki/Rangitikei is in the ground. Beet, barley and pea crops are all in the ground in the Manawatu. Some growers have managed to get all their maize and grains planted, which is a great effort given the recent inclement weather. In general, planting is a little behind in the Horowhenua/Manawatu region, with about 50% of the maize now in the ground but contractors are working around the clock to get the crops in. Growers in the Manawatu report that they still have some cereals to go in on the damp, heavier soils and that maize is still to be planted on the heavy sand country.

The overall amount of maize being planted seems to be on par with previous years, with slightly less than usual in some areas due to lack of commitment from dairy farmers. A large amount of grass silage is being made across the Horowhenua and Manawatu districts, putting contractors under the pump. *Megan Cushnahan, FAR Regional Facilitator*

Waikato

In Waikato, maize is either just planted or in the early emergence stage. There are reports of heavier than usual pest damage, including cutworm, with at least one grower expecting to lose an estimated 20% of the crop, despite using coated seed. There is concern about the number of Central Waikato crops with infestations of what appears to be an army worm, although still waiting for a positive ID. Reports of similar issues in chicory crops in Tolaga Bay. *Rachel Mudge, FAR Regional Facilitator*

Crop management

Cereals

Spring disease management

Most wheat crops are almost, or well past GS 39 and growers are considering how best to protect their flag (money) leaves. Your approach to T2 fungicides will depend on the level of disease in the crop. Remember that the GS of a cereal crop is determined by the primary tiller, so if the main tiller is at GS 37 (tip of the flag leaf emerged) the remaining tillers may still be at GS 33. This means that if you have used the TO -T2 strategy, you may end up straddling applications around the flag leaf. FAR trials have shown that choice of cultivar along with disease pressure will influence the success of a "straddle" programme.

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.

Crop Action

The key 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, you 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.

Table 1: Risk periods (relative humidity periods (RH>85%)) for the past four weeks (October 7th 2025 to November 4th 2025) for key cereal-growing regions of New Zealand. Risk periods are represented by red boxes.

Date	October									November																			
Site	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4
Methven																													
Wakanui																													
Timaru																													
Fairlie																													
Gore																													
Levin																													

Table 2: Latent period (days) of STB from October 7th to November 4th 2025.

	2025	2024
Methven	21	23
Wakanui	19	22
Timaru	20	24
Fairlie	21	25
Gore	24	25
Levin	18	19

Table 3: Total precipitation in mm from October 7th to November 4th 2025.

	2025	2024
Methven	90	123
Wakanui	30	85
Timaru	27	76
Fairlie	65	109
Gore	70	77
Levin	83	99

Additional resources:

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

Aphid monitoring

Monitoring of autumn-sown cereals in mid-Canterbury finished this week and will conclude in South Canterbury next week. Both regions are now seeing significant aphid numbers on autumn-sown cereals, but since crops are now past GS 32, the risk of yield losses from aphid-vectored viruses is minimal. Southland monitoring is continuing; the region has been wet and aphid numbers are well down on previous years. Monitoring will continue there for a few more weeks. In the meantime, spring-sown crops may be at risk if they are between GS 21 and GS 32. A common practice is to apply a single foliar insecticide during this period (which, in spring, can go by remarkably quickly). In the meantime, to check out the latest in aphid monitoring data, and to find useful advice on beneficial insects, insecticides and more, please visit Aphid Chat.

Herbage

Cocksfoot disease management

Over the past four years, FAR and SIRC have been conducting trials on management of downy mildew (*Sclerophthora cryophile*), a disease which in recent years has become a significant issue in cocksfoot seed crops, particularly in Canterbury. The disease is characterised by head bleaching and reduced seed yield. The causal organism for downy mildew is an oomycete, not a true fungus, so regular fungicides are often less effective; a more tailored approach is required. Products such as Phoenix® (500 g/L folpet) and Ridomil® Gold (40 g/kg metalaxyl-M + 640 g/kg mancozeb) have been found to be the most effective in FAR trials.

Foschek® (400 g/L phosphorous acid) also shows promise, and an additional trial was established during the 2024-25 season to investigate the optimal timings and rates. In the 2024–25 trials, Foschek® applied at 5 L/ha as part of integrated programmes with other oomycete-targetingfungicides further demonstrated its potential effectiveness. Further work is needed to confirm the most effective growth stage application timings for Foschek® in cocksfoot seed crops.

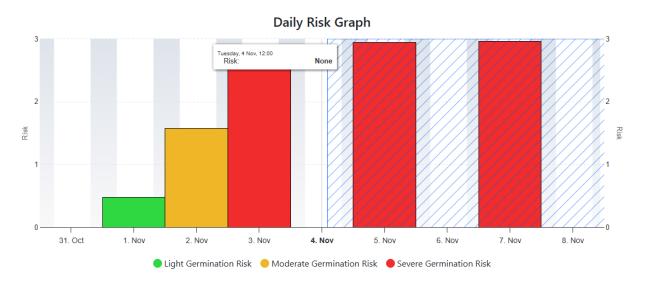
The disease is more severe when conditions have resulted in prolonged leaf wetness, so if you are in this situation, consider applying a control spray such as the ones listed above. If a fungicide is warranted, note that fungicide applications at ear emergence and flowering have been found the most effective in FAR trials.

It is also important to be aware of the risks of fungicide-resistant pathogens developing. This risk can be mitigated by rotating between different active ingredients and making sure to stick to label instructions regarding the number of applications allowed in one season.

Further reading: FAR Focus 16: Cocksfoot Seed Production

Stem rust management

Persistent dry conditions in Canterbury have likely lowered the risk of stem rust in ryegrass seed crops at present. Nevertheless, plant growth regulators (PGRs) going on to these crops at the moment will still be including a fungicide in the tank mix, usually a triazole (e.g. Proline® and other generic products, a.i. prothioconazole, Group 3). Risk conditions for stem rust are triggered when there is dew in the mornings and prolonged leaf wetness. A stem rust risk assessment tool available via the weather platform on the FAR website (click on "Pests and Diseases" at the top of the page), can help to identify risk to your crop. The image below shows an estimation of the risk of stem rust spore germination for the last nine days at Chertsey.



Getting your fungicide programme right is vital for ryegrass seed crops, especially overseas turf types which are more susceptible than most New Zealand-bred forage types. Early-flowering cultivars may also need extra protection.

Stem rust is one of the topics on the agenda for FAR's upcoming ARIA field day (26 November, Chertsey Arable Site). Find out more here.

Further information:

- Come and hear Richard Chynoweth (formerly of FAR, now at Macfarlane Rural Business) and Nick Davies (BSI, AgResearch Group) speak at ARIA on this topic!
- Page 7 of the <u>2021/22 FAR/SIRC Research Results Booklet</u>.
- Page 18 of the <u>2020/21 FAR/SIRC Research Results Booklet.</u>

Irrigation management for browntop seed crops

FAR trials have shown that browntop (*Agrostis capillaris*) seed crops have a high water demand in late maturity. Irrigation management is therefore key to ensuring a good yield, with the aim being to prevent the crop from reaching the point of drought stress. Browntop seed crops are less drought-tolerant than ryegrass, wheat or cocksfoot, so it is important to keep them irrigated throughout the season, particularly during hot, dry periods. Find out more in FAR's recently release Herbage Update 82: Irrigation management for browntop seed crops.

Maize

Fall armyworm update

The first (male) fall armyworm (FAW) moth of the season has been detected in a trap in Northland. There is now a dedicated website for FAW information – please bookmark www.fallarmyworm.nz for up-to-date regional reports and information to support long-term management of this pest.

Please send through any observations or reports of FAW to Ashley Mills at Ashley.Mills@far.org.nz. The data collected is important to support future pest management efforts.

Getting your planter setup right

Many maize crops are already in the ground, but for some that process is yet to begin. The following factors should be considered in order to set your crop up for the best yield possible.

Plant spacing

Uniformity in plant spacing has been shown to be a significant factor in increasing maize yield. For instance, a FAR study in 2001 showed that New Zealand maize grain growers at the time were averaging 0.2 t/ha of lost yield due to inconsistent plant spacing. While this can sometimes be caused by insect damage, other factors are in your control. These include maintaining a constant planter speed and having an even seed bed. Rolling before sowing can break up larger clods and help in this regard (while also improving seed-soil contact).

Planting depth

Ideal planting depth for maize is 50mm, however, this depends on soil conditions. Always to plant to moisture. When conditions are warm and dry maize seed will emerge from depths of 75mm or more, quite comfortably. When conditions are cold and wet, 50mm should be considered the maximum depth. Trying to 'beat the weather' when heavy rain is forecast often ends badly. The time between planting and emergence is the most vulnerable time for any seed. Whilst light rain can be welcome, heavy rain often results in poor emergence.

Emergence uniformity

The best yield potential is achieved when all plants emerge at, or close to, the same time. While some of the factors that affect emergence are out of the grower's control, there are steps you can take to encourage uniformity. Maize germination and, therefore, emergence, depends on soil moisture, soil temperature and soil-to-seed contact, so getting the above factors right is a good start. Also make sure that the planter is set up for the correct depth and is closing the soil back over the top of the seed with adequate down force to achieve good soil-to-seed contact. Ensure any surface residue is not interfering with this process.

Crop status and side dressing

During the early growth stages, maize seedlings absorb nutrients and water from the seed and a small amount from the soil via the seminal or seed roots. At around growth stage V3, nutrients from the seed are mostly exhausted, and the nodal (permanent) root system starts drawing all the plant nutrients and water from the soil. It is at this stage that, provided soils are not compacted and roots haven't been hindered, nodal roots will come into contact with starter fertiliser.

Alongside determining if a post emergent herbicide is required, the next maize crop management phase is to consider N application side dressing. FAR has undertaken a considerable amount of research to develop good practice strategies and tools for nitrogen side-dressing; these include the DeepN soil test protocol, the AmaizeN calculator, and the Nitrate Quick Test.

Given the price of N and the contribution N fertilisers have on GHG emissions, in order to optimise nitrogen-use-efficiency a soil sample should be collected to a depth of 60 cm before side-dressing to determine the amount of plant available nitrogen in the soil. If soil type and yield zones are known within the field, representative DeepN samples should be collected by each soil type and yield zone. If these zones are not known, a standard sampling protocol should be used for the field, taking care to avoid areas of the field where animals may have congregated or other anomalies might have occurred. A Nitrate Quick Test or Min-N lab analysis can then be completed to determine the amount of available soil nitrogen, and from there, a nitrogen side-dressing plan completed. For more information, refer to the resources below.

- Soil nitrogen supply calculator
- Nitrogen: The confidence to cut back, FAR Focus 14
- The Nitrate Quick Test Mass Balance Tool and User Guide
- AmaizeLite N calculator for maize
- Nitrogen use efficiency in maize

Weather Updates

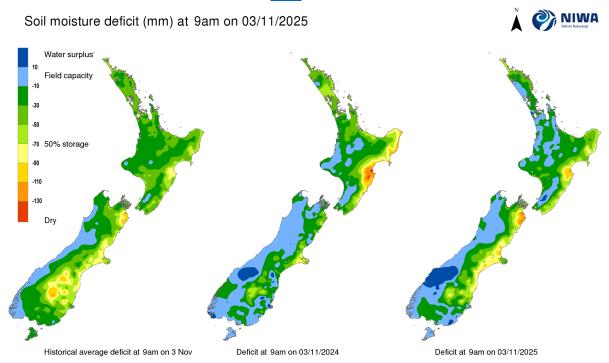
Long-term weather outlook

The <u>climate outlook from ESNZ</u> notes that La Niña conditions now exist in the tropical Pacific Ocean, meaning a high probability of the same developing in New Zealand over the summer. This should lead to more settled weather than what the country experienced in October, although there may still be some further extreme weather events in November. Overall, however, November is expected to be dry, especially in the first part of the month. Only the Far North is expected to have a chance of being wetter than average. Towards and after New Year, easterly air flows are expected to dominate, and the risk of tropical storms affecting the North Island will be slightly elevated. Air temperatures are expected to be average to above average, with mostly normal rainfall levels. ESNZ does note, however, that rainfall predictions are less certain than usual.

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.



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