Crop Action

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In this issue of Crop Action:

Editor's note

Many growers across the country are still navigating a challenging season - turning paddocks around for autumn planting or finishing harvest. With pressures on-farm and overseas markets affecting profitability, it's worth focusing on what you can control, while also taking time for yourself and reaching out to someone if you need support.

To support profitable decision-making, the final FAR Autumn Results Roundups are being held this week—online for the lower/eastern North Island and in person in Methven. A video recording of the Southland online event is available here. Visit the FAR events page for details and to register. The event booklet is also now available on the FAR website.

A key takeaway: making use of soil nitrogen can save up to $250/ha in fertiliser costs.

NCRS site update

The maize at NCRS was harvested for silage on 27 and 28 February by John Austin Ltd. We had a harvest of 411 tonnes of dry matter from 19.6 ha, an average of 21 t/ha. 'Nui' perennial ryegrass was planted across the site on 6/3/26. There has been little rain in the last month and soil moisture continues to drop in the top 10cm, currently at 23%. The ryegrass has not yet emerged.

Crop management

General

Planning to make the most of soil nitrogen

How was your harvest? If harvest didn't meet the targets you were using to calculate fertiliser applications, it's likely that there is still nitrogen in the soil. This should be considered when planning your fertiliser budget in the coming season. On the other hand, if your crop came in above expectations, perhaps you haven't been making full use of the nutrients the soil is able to provide. In either case, getting these calculations right is even more important this year, as world events seem set to increase urea costs again.

The key to making the most of soil nitrogen is soil testing. The Quick N test is a practical, affordable way to test soil samples without having to send samples away to the lab. FAR has produced a guide to using the Quick N test kit, that can be found here.

A more in-depth article on this topic can be found in the recent booklet from FAR's autumn results roundups. See p13.

Setting up for autumn weed management

With the continued threat of herbicide-resistant weeds, especially to Group 2 post-emergence herbicides, pre-emergence herbicides become vital to the continued profitability of arable systems. Sakura® (a.i. pyroxasulfone, Group 15) is commonly used for pre-emergent grass weed control in cereals and other crops, but needs to be washed in by at least 10 mm (but preferably 15-25 mm) of rainfall or irrigation to be most effective (Read more here.)

When planning for autumn plantings this coming season, consider:

- Monitoring how much rainfall/irrigation goes on through that period so you can avoid nasty surprises later on.
- Anecdotal evidence suggests that including Avadex™ (a.i. tri-allate, Group 15) as an incorporated, pre-planting herbicide, can "buy time" for the Sakura® and improve efficacy on some grass weeds in dry seasons.
- Monitor the crop for weed misses or escapes and have a plan for what to do if these are significant, either by rogueing, or by using an appropriate post-emergence herbicide. Some growers have been trialling tine weeding recently, with good results. This technique works best in drier conditions, which could be relevant for some regions this year.
- If there has been rain before pre-emergence herbicide application, there could be a weed strike. Many pre-emerge herbicides (including Sakura®) aren't effective on already-emerged weeds, so consider tank-mixing a knockdown herbicide. Some growers delay sowing until there has been a weed strike and apply glyphosate before sowing.
- Remember that, even in dry seasons, many pre-emergence herbicides can remain in the soil and be effective later in the season on later weed flushes that come once soil moisture levels return to normal.

Further resources:

- Integrated Weed Management
- Herbicide Screening Trial Results
- Management of ryegrass weeds
- Autumn results roundups booklet (see p 21)

Autumn irrigation management

Autumn can be a tricky time to get your irrigation right. Setting up moisture sensors as soon as possible after a crop is sown is a good idea and can give insights into how your irrigation is impacting soil moisture and crop development.

Irrigation is important for the developing crop, but be aware of the following issues:

- Irrigation can lower soil temperatures, possibly slowing growth rates.
- Early over-watering can disincentivise a crop from developing deep roots, which can cause problems later in the season, especially if there is water stress.
- Never fill the profile, as this can lead to nutrient loss and is a waste of resources; always leave space for any rain event to fill any gaps.
- More information on this topic can be found on p32 of 2024's issue of FAR's *From the Ground Up* publication.

Cereals

Autumn planting

Some Canterbury growers have begun sowing autumn cereals, however, for most growers, April or even May is the preferred sowing window. Last season weather conditions forced many growers to sow later than was optimal; we will be hoping for better conditions this season. Remember that earlier-sown cereals are more vulnerable to YDV-induced yield losses. While this is not usually an issue, and can be mitigated, it's worth considering.

Some growers may still be considering which cultivar(s) to plant. FAR's annual cereal Cultivar Performance Trials (CPT) are a valuable source of information when thinking about this issue. Provisional results from these trials is now available on the FAR website, which can be accessed here. You can also access the full booklet of results for last season's trials here.

Herbage

Sowing perennial ryegrass seed crops

Autumn planting of ryegrass seed crops is underway, or will be soon. One of the most problematic weeds that can be found in these crops is Vulpia hairgrass (*Vulpia bromoides* and *Vulpia myuros*). Once Vulpia becomes established in a crop, there are few control options, so getting your herbicide programme right from the start is crucial.

- FAR trials have consistently found that Nortron® (ethofumesate, Group 15) applied pre-emergence is more effective at 4 L/ha than at 2 L/ha.
- Quantum® (DFF, Group 12) can be added pre-emergence at 100 mL/ha to improve control. Some crop damage may be observed in some cases, although the crop should recover.
- In FAR trials, Vulpia hairgrass control (and seed yield) was improved with a post-emergence herbicide following Nortron® at 4 L/ha pre-emergence. Early application appeared to be important (FAR trials applied herbicides at GS 21-22 of the crop). Isoproturon (IPU, multiple formulations, Group 5) and atrazine (Group 5) are possible options.
- Prominent® (prometryn, Group 5) has been included in several FAR trials over the last few years. When applied later (GS 24 of the crop) it has given good results in most trials. Some crop damage has been observed in some trials and it is not yet clear the conditions that are leading to this.
- If you are grazing your crop, be aware of withholding periods and that some herbicides may reduce biomass.
- Always read the label of any agrichemical product before use, and if in doubt, contact your agronomist or industry rep.

For further reading please see p25 of the current Autumn Roundups Booklet.

Maize

Cover crops for maize silage systems

Many North Island growers have finished harvesting maize silage and are considering their options for managing the paddock post-harvest. Maize grain crops are usually followed by annual ryegrass, but in silage crops there are more options. If you are still on the fence about what to do post-harvest, consider using a cover crop. FAR's *From the Ground Up* magazine from 2023 contains an in-depth article on these choices (see p26), from which the table below is reproduced. If you are considering your cover crop options, the article is well worth a read.

In FAR trials cover crops have decreased weed pressure. Mulch from winter cover crops can be used in an integrated weed management approach in maize grain crops. Cover crops without herbicides can achieve good weed suppression and, when combined with a single post-emergence herbicide, achieve effective weed management while maintaining silage and grain yields. Read more in FAR's 2025 publication, FAR Focus 17, Maize Weed Management.

Table 1: Indicative example of cover and catch crop species comparisons.

Type	Species	Seed size	Seed price/kg	Seeding rate (kg/ha)	Planting depth (mm)	Dry matter yield (t/ha)	Suitability for grazing	Suitability for silage
Grasses	Annual ryegrass	●	$	20 - 30	10	3.0 – 6.0	Excellent	Excellent
	Cereals	●	$	80 - 150	20 - 40	4.0 – 9.0	Good	Excellent
Legumes	Faba bean	●	$	200 - 300	50 - 70	3.0 – 7.0		Good
	Vetch	●	$ $ $	25 - 40	20 - 40	2.0 – 5.0	Adequate	Good
	Lupins	●	$ $	100 - 150	40 - 60	3.0 – 6.0		
	Annual clover	●	$ $ $	4 - 10	5 - 10	2.5 – 5.0	Good	Excellent
	Perennial clover	●	$ $ $	4 - 10	5 - 10	0.5 – 1.5	Good	Excellent
Brassicas	Radish	●	$ $	6 - 8	20 - 30	3.0 – 7.0		
	Mustard	●	$ $	6 - 8	10 - 20	3.0 – 6.0		
	Turnips	●	$ $ $	1 - 3	5 - 10	3.0 – 7.0	Good	

Autumn lime application

The optimum soil pH for maize production is around pH 6.0. If soil pH is lower than the desired optimum, autumn is an ideal time to consider applying lime (calcium carbonate). This is because:

- Soil conditions are often drier in autumn than in late winter or early spring, which results in less soil compaction from lime spreading equipment.
- Depending on lime texture and calcium carbonate content, it can take six months or more to increase soil pH to the desired range. Autumn lime application provides more opportunity for soil pH to reach the desired level for the spring-planted maize crop.
- It's one less task to do in the spring when you're likely already busy doing other chores in preparation for maize planting.

Depending on how the paddock has fared, you may wish to use zonal soil sampling rather than relying on a single composite sample. This could be particularly useful in flood-affected areas, where silt build-up may be uneven over the paddock, leading to pH changes of different levels in different areas. The quality of the lime you use will affect the evenness of the spread. Spreading width should be 6-8m maximum and is usually most effective when undertaken by a contractor.

Fall armyworm update

Fall armyworm (FAW), *Spodoptera frugiperda*, remains present across New Zealand, but the pattern of risk is now changing. As many early-planted maize crops are harvested, pest pressure is becoming more concentrated in later-planted and replanted crops. These crops have consistently carried the highest infestations throughout the season.

Scouting remains essential at this stage of the season. Volunteer maize plants are a key risk. Monitoring and removing volunteers early will reduce available host material and help limit carryover populations.

Local information improves timing and outcomes. Your observations are important. Please report FAW activity and outcomes to ashley.mills@FAR.org.nz.

Read the most recent FAW update (25 March, 2026) here

Oilseed rape

Paddock preparation

When preparing to plant oilseed rape, there are a number of considerations:

1. Do a soil test or use a recent soil test to determine which nutrients might be lacking. Consult with your agronomist to identify key nutrients and develop a fertiliser plan.
2. Consider applying lime to adjust pH if soil tests justify it.
3. In the absence of a soil test, either apply a good rate of Potash Super (300-400kg/ha), or DAP (100-150kg/ha) at drilling. This will provide a good start for the crop with the aim to deliver enough N and P for good plant development.
4. Employ a stale seed bed to encourage any weeds and volunteers to germinate and be controlled before planting.
5. Prepare the seedbed. Be mindful of conserving moisture by limiting cultivation if appropriate. Turning damp crop residues on the soil surface can help to conserve soil moisture.
6. Get your pre-emergent herbicide programme right. Trifluralin (Group 3) is good on grass weeds, while products such as Ombré® Encaps® (active ingredients alachlor, Group 15 and clomazone, Group 13) are better on broadleaf weeds, while still having activity on grass weeds. Consult with your agronomist.
7. Ensure good establishment and reduce bird and slug damage by planting as early as possible.

Thanks to Pure Oil NZ Ltd for providing much of the information in this article.

Weather Updates

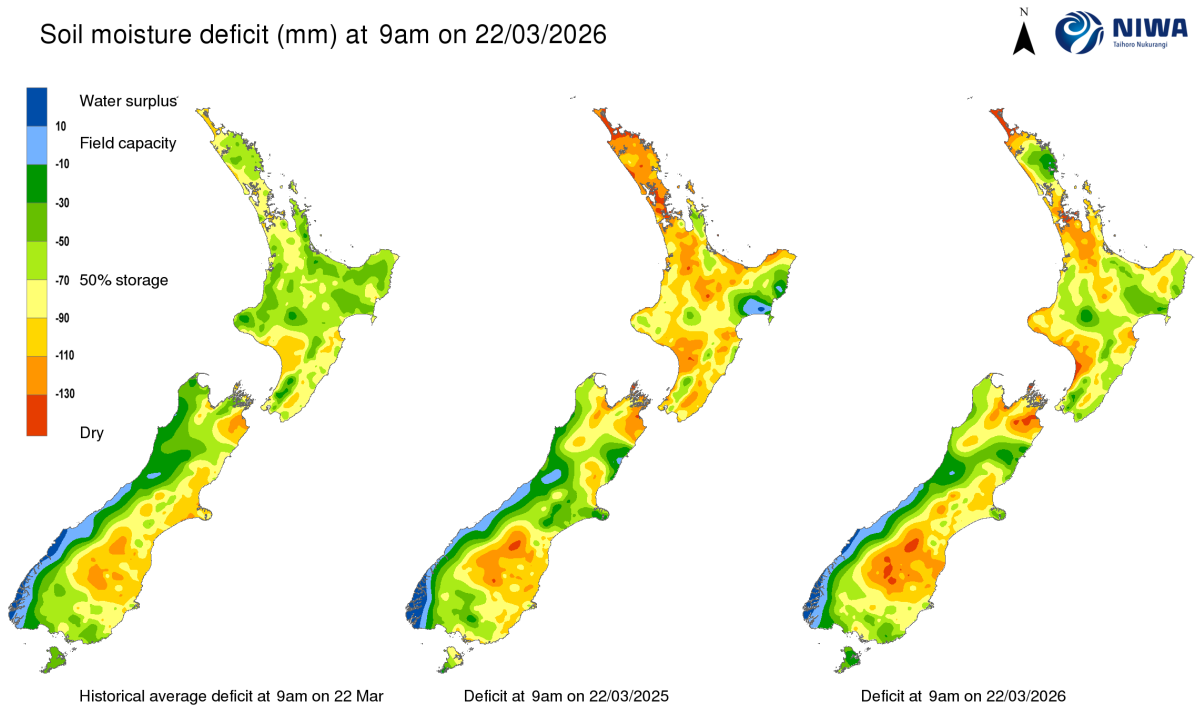
Long-term weather outlook

According to the NIWA outlook for March to May, weather coming from the easterly quarter will continue to predominate. There is also a heightened risk of tropical incursions bringing unsettled weather, especially for the North Island, but with periods of better weather between these. Towards the end of the three-month period, the system will shift so that the predominant source of New Zealand's weather is from the north. Air temperatures should be close to the historical average for most arable regions of the country, except for the north and west of the North Island, where they are expected to above average. The same area is expected to have above average rainfall, while near normal rainfall is expected everywhere else.

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 NIWA here.



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