Crop Action

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In this issue of Crop Action:

Editor's note

As we write this, those in the north and east of the North Island are awaiting the arrival of Cyclone Vaianu. By the time you are reading it, we will all have some understanding of its impact. Events like this are devastating, and will add further pressure to already stressed growers.
Elsewhere it's a busy time for autumn preparation and planting. Sowing of winter crops (grasses, cereals, etc.) is also underway and some growers are well into this, or even finished with it. Check out the input efficiency tips below for ideas on how to reduce fuel and other costs. During this busy time, don't forget that there are plenty of resources that FAR can provide, including the latest research results, which were recently presented at our autumn results roundups. The booklet from these events can be found here, or you could also choose to watch a video recording of the Southland and lower North Island events.

FAR would also like to take this opportunity to remind all growers and other industry professionals that it is important to look after yourselves, especially now when there is a lot of uncertainty in the world, which is affecting the way we do business. There are several events planned for the second half of April that are designed to get growers (and others) out and talking about things while also supporting each other. Check out FAR's events page for more details.

Regional Updates

Southland

The key focus for growers at the moment is harvesting the last of the season's crops; the last of the cereals and a few small seed crops. In addition, growers are getting ground prepared for replanting, with some favourable conditions, but perhaps a little bit of rain would be welcomed. There a large amount of uncertainty due to world events, with some growers looking to increase livestock numbers as an option, alongside securing fuel and fertiliser for now and for spring. *(Nicole Foote, FAR Regional Facilitator)*

South Canterbury/North Otago

For most SCNO growers, harvest is mostly completed, although a few have some small seed or niche crops to harvest. Growers have used any fine weather in late March to cultivate and sow crops for harvest in 2027. Fuel usage in SCNO would usually start to drop off, but given international events, growers are now starting to express some caution.

The wet and uncertain weather has meant growers are reconsidering options, whether it is delaying planting to avoid the risk of replanting any drowned out crops or changing cultivars that handle the later planting date or are less fertiliser heavy. (See FAR's Autumn Cultivar Booklet 2025 or this season's Harvest Snippets for more information.) Where cash flow allows, growers are securing fertiliser and diesel stocks, or keeping diesel tanks topped up. Growers are acting with caution as they assess international dynamics. *(Thank you to grower Andrew Darling for providing the Regional Update information this month.)*

Northern South Island

Harvest has been completed for many growers in the region; some still have later seed crops (such as radish) to come over the next few weeks. Grass and clover crops are in the ground, while the next week or so will be focussed on feed wheat sowing; milling wheat will be in early May. Some growers are looking to improve fuel efficiency by using more efficient tractors, hoping that the higher service costs will be outweighed by the diesel savings. Some growers are also looking to save on fertiliser costs by altering the rotation to crops that don't need as much. The loss of peas in the rotation due to the Wattie's plant closure is also forcing growers to change their rotation choices. *(Donna Lill, FAR Regional Facilitator)*

South-west North Island

The past couple of weeks have been dry, and maize silage harvest is now in full swing. Feedback from growers has been mixed, with some reporting yields lower than expected, particularly where crops were affected by the New Year storm. Lower solar radiation between November and February has also had an impact, especially in the lower Manawatu and Horowhenua. As a result, some dairy farmers who grew their own maize this season are now looking to buy additional maize silage to top up winter feed.

Most growers are reseeding back into pasture as their winter cover crop. One grower said this is the year he will do a lot of soil tests to ensure his fertiliser spend is optimised and will only put on the bare minimum in spring as the fuel costs related to spreading are putting him off. One large-scale dairy farmer spoken to noted that if prices keep rising, he will look at feeding more supplement through the in-shed system next spring, which would increase his demand for grain maize and cereals. He said PKE prices have risen a lot in recent weeks and that home-grown legumes were looking like a strong option for both protein source and putting some nitrogen back into the soil as his urea costs were on the rise.

Increased fuels costs are resulting in significant fuel surcharges for maize growers using contractors, though contractors report that customers have generally been understanding of the situation.

Cereal crops have had a good season overall, with yields generally looking solid. Cereal growers in the region are largely staying the course and, at this stage, are not making any major changes to their approach. *(Megan Cushnahan, FAR Regional Facilitator)*

Eastern North Island

There are two main things on growers' minds in the East Coast region at the moment; rising fuel prices and the closure of both the Wattie's and McCain's processing factories in Hawkes Bay.

These closures have left growers questioning what crops to grow moving forward. With the seed dressing plant in Wairarapa also having closed last year, cropping options are becoming increasingly

limited. At the same time, higher fuel prices are making growers carefully consider costs, including those associated with maize grain drying and harvesting.

One strategy we are using is to allow maize to dry down in the paddock until moisture levels fall below 20%, to reduce fuel use for drying. This approach is not without risk - if a cyclone occurs while the crop is left standing, there is potential for wind damage. Delaying harvest also reduces opportunities for winter pasture and winter oats.

Also, if fuel prices continue to escalate, it may ultimately have been cheaper to harvest earlier and dry the grain.

At present, I'm finding it difficult to plan for viable financial opportunities next season due to the high level of uncertainty around input prices and the prices we might achieve for our crops. That said, I am optimistic the grain prices will rise, particularly as competing feed inputs such as palm kernel expeller (PKE) have risen sharply in recent weeks.

We will be keeping a close eye on fertiliser prices and may reconsider planting some high nitrogen grain crops in spring. Soil testing will be an important part of this, helping us assess how much nitrogen is actually required before planting. Depending on the results, we may choose to plant more pasture instead.

In terms of fuel and fertiliser availability, our suppliers have assured us that supply is currently adequate. However, some growers are trying to keep their fuel bowsers as a hedge against further price increases. From a fertiliser perspective, I am considering buying and storing to ensure availability in the coming months.
(Thank you to grower Ed White for providing the Regional Update information this month.)

Crop management

General

Updated costs of production

FAR contracts Macfarlane Rural Business (MRB) to update the Cost of Production spreadsheet annually. Costs on this sheet are for a standard set of crops from a case study of a typical irrigated Mid-Canterbury arable farm with a mid- to high-input system, using contractor prices. As such, these figures may not exactly reflect your particular farm system. They provide historical trends and a tool for growers to include inputs and prices that are closer to their own situations and regional locations. It is important to note that these were the prices for the 2025-2026 growing season and not the current prices as at autumn 2026.

Given the price volatility and uncertainties of the present, we have requested further forecasts from MRB based on the existing case studies, and also an expansion of the list of crops to be analysed. These will be published over the next few weeks.

See spreadsheet here.

Input efficiency tips

With concerns about fuel and fertiliser prices are increasing, FAR Technology Manager Chris Smith, has some tips for doing your best to use inputs as efficiently as possible.

Auto-steer

Manual driving inevitably means overlaps, often five to ten percent across a typical day's work. Auto-steer can trim that down to one and three percent. This small adjustment in accuracy brings a surprisingly large payoff. Straighter passes don't just look tidier, they reduce throttle variation, lower operator fatigue, and keep machinery working more efficiently.

These gains are more pronounced when visibility drops, e.g. spraying at night, working with wide implements, or operating in flat, hazy light. Most farmers who move from manual steering to a decent guidance system can expect to burn five to twelve percent less diesel across a season.

Cost vs accuracy

Choose the right level of accuracy to prevent unnecessary spending. SouthPAN, which is free and works anywhere with a clear sky view, is already accurate enough for mapping tasks and jobs that don't demand precision.

At the next level up, services like CentrePoint RTX offer near-RTK accuracy once they have converged, making them ideal for spreading or spraying where consistent two-to-three-centimetre repeatability is valuable.

Farmers wanting instant, high-accuracy performance for tasks like precision planting or strip-till will still find RTK hard to beat; although it's worth remembering that RTK will never pay for itself through fuel savings alone. Its value comes from a combination of factors including time savings, reduced overlap, lower fatigue, and the ability to manage inputs more precisely."

Accuracy = efficency

Even a basic guidance system can knock two to seven percent off chemical or fertiliser use. Adding section control can delivering savings of more than ten percent once overlap is removed on headlands and around awkward field shapes.

Variable rate

Across a set of typical New Zealand paddocks savings of five to twenty percent aren't unusual, while phosphate and potash can drop by ten to twenty-five percent. Lime is often the standout, with well-mapped paddocks showing reductions of twenty to fifty percent as over-supplied zones are corrected rather than blanket-treated. Seed savings are normally smaller but can still add up.

To make VRA genuinely effective, several pieces need to work together. Data layers based on soil sampling, canopy imagery, crop sensors, remote sensing, and yield maps provide the guidance system with real intelligence.

These layers feed into prescription software, where maps are turned into application zones and "what-if" scenarios can be run to estimate savings before anything is applied in the field. Rate controllers, terminals, and ISOBUS systems then execute the plan, while as-applied maps and yield monitors close the loop by showing what actually happened. The cost of upgrading to VRA-capable

equipment is usually around $20,000 over a standard machine, but in years when fertiliser prices spike, payback can come surprisingly quickly.

Optimum fertiliser application rates
The economic optimum application rate is the point is the one the maximises margin. As fertiliser prices increase, the most profitable application rate tends to drop.

Machinery choice and setup
The temptation to jump on the most comfortable or powerful machine is strong. Matching horsepower to the actual job can cut fuel use by twenty to forty percent on lighter tasks. The difference between a 100-horsepower tractor burning eight to ten litres an hour and a 200-horsepower machine burning up to twenty litres adds up quickly.

Tyre pressures are also important; correcting inflation can save five to ten percent in fuel during light work and up to twenty percent for heavy machinery. Lower pressures in the paddock reduce wheel slip and improve traction, while higher road pressures reduce rolling resistance on the way home.

Even the combine harvester, often considered a fixed-cost monster, offers opportunities for efficiency. Many growers have found that by slowing the rotor or drum and opening the concave, they can lift throughput while reducing fuel use. We've seen examples of fuel savings of over thirty percent. When assessing losses, it pays to consider not just grain left on the ground but the cost of running the machine per hectare. In seasons of high fuel prices, crawling along to save a fraction of a percent in losses may turn out to be a false economy."

These small refinements, applied consistently, can deliver significant savings. All growers can implement some of the ideas listed above and, over time, move towards using them to their full potential.

Making the most of soil nitrogen

With the international uncertainty causing increases in fertiliser prices, making good, informed decisions about nitrogen is more important than ever. Some growers may be considering cutting back on the optimum urea application rates if supply becomes an issue. While this inevitably affects yield, it could be a consideration to ensure that supplies are still on hand if global supply comes under increased pressure. In autumn-sown wheat, for example, a 20% reduction in applied N will likely only lose 05-0.75 t/ha in yield. This reduction would be even less if soil N is adequate.

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.

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, which 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. You can also watch the video of the Southland presentation. The relevant part begins at 59:38.

Autumn weed management and herbicide resistance

The problem of herbicide-resistant weeds is becoming more pressing on arable farms. Autumn is a time where some key tools can be employed to prevent the development of a herbicide-resistant weed population in autumn-sown crops.

a. Cultivation

Cultivation before planting can promote a flush of weeds, which can make for a more even germination that is easier to control. Delaying sowing after the first cultivation pass can allow the use of a stale or false seedbed, which improves the effectiveness of herbicides.

Note that no-till practices don't inherently raise the risk of herbicide resistance developing, but will change the type of weeds that are prevalent. Smaller-seeded species will predominate and this will need to be considered when planning weed control programmes. Remember also that weed control in cereals after a grass seed crop can be particularly challenging because of the weed seed bank left in the soil post-harvest. Many growers choose to plough the seed under in this situation.

Recent FAR research has shown that strategic ploughing can reduce weed biomass and improve yield. No-till plots in the long-term establishment trial at Chertsey had more weeds than other types of cultivation, but after a one-off cultivation these plots showed lower biomass.

b. Pre-emergence herbicides

The biggest single risk factor for the development of herbicide resistance is the overuse of a single type of herbicide. Almost all herbicide resistance on New Zealand arable farms is to active ingredients in the Mode of Action (MoA) Groups 1 and 2. Both groups are used as post-emergence herbicides, so including a pre-emergence option can greatly reduce the risk of any herbicide-resistant weeds surviving. Weeds are also considered to be much less likely to develop resistance to pre-emergence herbicides – worldwide there are very few cases.

c. Consider your rotation

Having a diverse rotation allows the use of herbicides from different MoA Groups, as well as providing a different competitive environment that may change what type of weed is an issue. Also consider including cover crops and/or spring-sown crops, which further disrupts weed life cycles. If you know that certain paddocks are an issue (or you suspect they might be), focus your efforts there.

d. Non-chemical control

FAR has been investigating the use of spring tine weeders as a method of non-chemical weed management over the past few seasons. They are mostly used when the crop is small, but big enough to survive the treatment. The tines break up and/or bury the weeds while leaving the crop intact. Other types of mechanical weeder exist. The big advantage of mechanical weeding is that herbicide resistance is not an issue. Read more here.

Further resources:

- Herbicide resistance webinar (2025)
- Integrated Weed Management
- Herbicide Screening Trial Results
- Management of ryegrass weeds
- Extra 144 Vulpia hairgrass

Cereals

Aphid monitoring

While FAR is still awaiting definitive results of virus testing in collected leaves from last season, it seems clear that YDV was a bigger issue than usual – perhaps since the last bad season in 2005. While we didn't see the spring aphid flights that would normally warn us of a risk of primary infection by virus-bearing aphids, weather and other data were indicating a possible large increase in aphid numbers towards the end of October, which is what we observed. A year like we just experienced is also hugely valuable in predicting future risk periods, and we are fortunate that data and observations were being collected at so many sites so that we can reflect on it and improve our future forecasting.

With all of this in mind, it would be expected that growers would be extra vigilant in watching out for risk periods for YDV infection in autumn-sown cereals. FAR has begun setting up monitoring paddocks, with data expected to come in from at least one location (Waimate) towards the end of next week. You will be able to find this information, as usual, at the Aphid Chat website. Growers (and others) are welcome, as usual, to contact the Aphid Chat administrator at ben.harvey@far.org.nz with questions, comments and suggestions.

Remember that sowing seed coated with insecticide such as Gaucho® or Poncho® (imidacloprid or clothianidin, Group 4 and 4A insecticides respectively) will protect the crop at the most vulnerable stage, up until tillering. Later-sown cereals (from about mid-April on) will usually reach this stage once the weather is cold enough to suppress aphid numbers, but if temperatures remain elevated at this time, a risk period can be triggered. It is quite common for growers to apply a single foliar insecticide at this time, or coming out of winter, when the likelihood of affecting beneficial insects is low.

For further information, see p34 of the recent Autumn Roundups booklet; you can also watch the online version of the Southland Roundup here. The relevant part starts at 1:22:17.

Herbage

Management of second-year cocksfoot and tall fescue seed crops

Grass crops being taken through for another season of seed production require good management to ensure good yields the following harvest. This affects all grass species, but is particularly critical in tall fescue. Yield is driven by head numbers, and the number of these will be affected by how much light is able to reach the base of the plant during autumn and winter. This stimulates new buds that form at the base of the plant to grow into tillers. The removal of crop residue soon after harvest, followed by at least one hard grazing (or topping), exposes the crown to light, ensuring new tillers are formed. Read more on p30 of the 2024 issue of FAR's *From the Ground Up* publication.

Maize

Managing harvest in adverse conditions

At the time of writing, Tropical Cyclone Vaianu was due to make landfall in the north of New Zealand on Sunday afternoon, bringing heavy rain and strong winds down most of New Zealand. Growers aiming to harvest this week could be in for a challenging time. FAR's Chris Smith recently presented some harvest tips which may be relevant. The video can be found here.

Other resources:

- Tips for harvesting lodged maize crops

Time to reconsider maize establishment?

While harvest is still the focus for maize growers right now, planning could be underway for the next season. With the rising cost of diesel, the economic equation for reduced tillage, and those looking to try out something new will need time to get organised. FAR results have shown better results for reduced tillage systems on good soils, for both maize grain and silage. Read more here.

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.

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 NIWA's outlook summary for April-June, temperatures close to the long-term averages are expected for all of New Zealand, although there will likely be cold snaps as we head into winter. Rainfall levels will also be close normal in the South Island, but the North Island is equally likely to experience normal or higher than normal rainfall totals. There could be some drier periods towards the end of this three-month period. The risk of heavy rainfall events due to tropical or sub-tropical influences is still elevated in April.

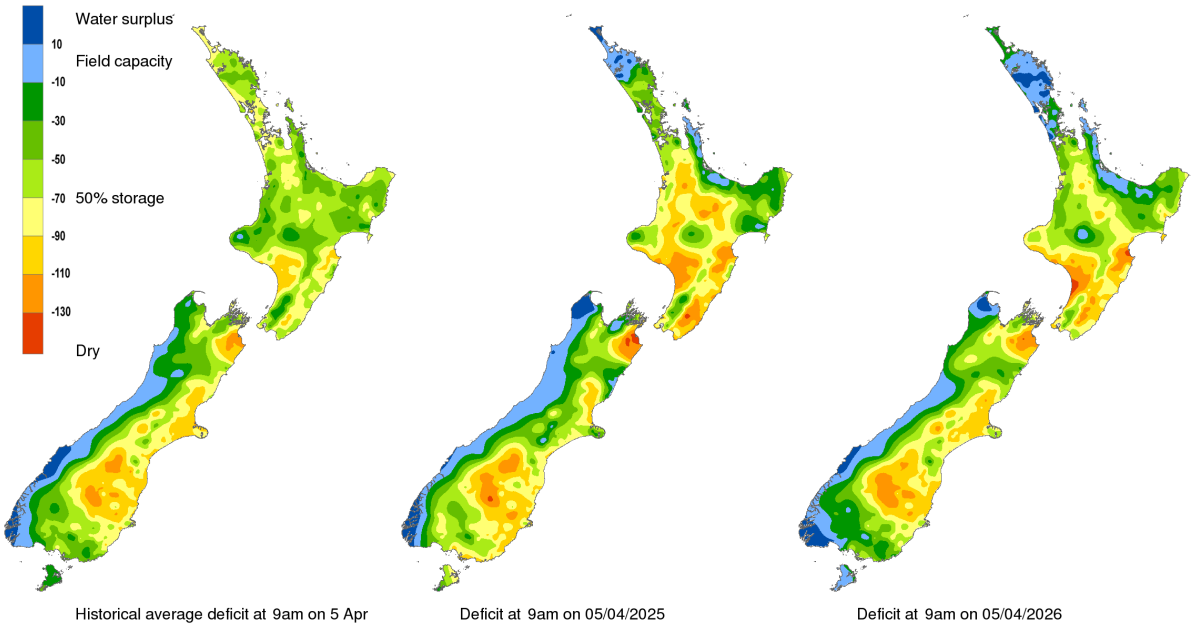
FAR weather tool

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.

Soil moisture deficit (mm) at 9am on 05/04/2026



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