Agriculture & Investment Services
Ministry for Primary Industries
Manatū Ahu Matua

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Fortnightly El Niño Agriculture and Horticulture Situation Report

KEY POINTS

- MPI assesses there are currently no significant impacts on the agriculture and horticulture sector because of the current El Niño weather pattern.
- Areas of the central and northern South Island and lower North Island are beginning to dry out significantly, with some low flow restrictions in place, although the positive feed situation provides livestock farmers with some additional options.

RISKS

- Hot and dry conditions contribute to an increased fire risk that can ignite dry vegetation and damage crops, machinery, infrastructure, and kill livestock.
- NIWA forecasts the El Niño weather pattern will continue into March 2024, and is likely to persist into winter. Dry conditions in autumn can affect the growth of winter crops, dimmish feed reserves, and further deplete water availability – particularly if following a period of reduced water availability during summer.

ACTIONS

- Continued engagement with sector organisations and government agencies to assist in the coordination and management of wider drought and El Niño impacts as needed, including reactivating, or establishing Drought Committees at the regional and/or local level.

BACKGROUND

- During an El Niño weather pattern, New Zealand tends to experience drier-than-normal conditions in eastern coastal areas and more rain than normal in the west which can bring an increased risk of drought. Droughts can have significant impacts on plant growth, food and fibre production, and water availability. These risks are compounded by concurrent hazards such as wildfire, flooding, heat waves, and water insecurity.
- MPI has a mandate to monitor and assess the situation, plan for, and coordinate a national response, report to the Officials Committee for Domestic and External Security Coordination (ODESC) and provide policy advice, as well as coordinate the dissemination of public information.
- This situation report provides a high-level summary of the current El Niño situation and MPIs assessment of the impacts on the agriculture and horticulture sectors, identification of emerging issues and trends, and the actions MPI (AIS) has taken to plan and prepare for a response.

SUMMARY

Dry to extremely dry conditions are beginning to appear, particularly in the central to upper South Island and lower North Island, although there has not been a reported increase in on-farm/orchard impacts as a result. Farmer and growers are taking measures to manage dry conditions, although a favourable feed situation does provide livestock farmers with some additional management options and continued rainfall in some areas has prevented conditions from drying out.

Farmer and grower morale continues to be challenged by financial and cost pressures, in part driven by low commodity prices, inflation, and debt servicing costs.

MPI does not assess that there are currently any significant impacts on the agriculture or horticulture sectors as result of the current El Niño weather pattern, in part due to a positive national feed situation and delayed dry conditions in early summer. Monitoring of the situation continues as well as planning for response if required.

The El Niño weather pattern is forecast to remain until March 2024, although its influence is difficult to predict due to its unusual behaviour compared to historical El Niño events.

EXPLANATORY NOTE

The matrix shown below provides a visual guide of the potential risks associated with each topic listed in the section below.

Low	Impacts or potential impacts are isolated to localised areas/sectors and largely within the capacity of the community to cope and risk management options are readily available.
Moderate	Impacts or potential impacts are generally isolated to localised areas/sectors, it is possible the number of risk management options may be limited and/or the capacity of the community to cope is reduced.
High	Widespread and severe impacts, generally across large areas/sectors, it is likely risk management options are limited and/or the impacts are outside of the capacity of the community to cope.

ANIMAL WELFARE AND FEED SITUATION

[No Change]

Animal welfare

1. MPI's Animal Welfare Compliance teams have not received an increase in complaints related to El Niño within the past fortnight. Complaints related to a lack of water for stock did see a small increase, however around 70% were unsubstantiated or remediated by farmers once brought to their attention. Reports of animals suffering from heat stress, lack of shade, or death during transport is on par with previous years.

National feed situation

3. It is **likely** there is sufficient national feed availability to meet animal feed requirements until the end of summer 2023/24 available through pasture, supplementary feed on-farm, or feed available for purchase. Feed supplies are **highly likely** to be reduced if areas of meteorological drought and water shortages begin to emerge.
4. Favourable growing conditions were reported in late-2023 and early-2024 by farmers and industry bodies/publications[1], leading to strong pasture growth and making of supplementary feed with the Bay of Plenty, Hawke's Bay, Nelson/Tasman, and Marlborough noted as having a surplus of pasture.
5. Hot, dry, and windy conditions have dried out soils over the past few weeks[2] (particularly in the eastern South Island and lower North Island) leading to a reduction in pasture growth and drying out standing pasture which has reduced quality.

[1] National Feed Survey, AgriHQ Livestock Insights, NZX Monthly Dairy Reports, media reporting, industry bodies involved in regional Rural Advisory Groups, National Adverse Event Committee, and MPI regional staff observations and conversations with farmers and industry bodies.
[2] NIWA Soil Moisture Deficit Maps

WATER AVAILABILITY AND SECURITY

[No Change]

6. It is highly likely that if hot and dry conditions continue during summer, further water restrictions will be implemented to conserve water and maintain low flows in waterbodies.

Water restrictions[3]

7. MPI is aware of water use restrictions in place across district water schemes and town supply. These restrictions primarily apply to sprinkler and gardening use on residential properties and current information does not indicate impacts on animal welfare or primary production.
8. Waterbodies in very dry to extremely dry areas (Fig. 1) are nearing low flow conditions or have low flow conditions in place restricting the use of water for consented takes. These low flow restrictions limit or prohibit the use of water for activities such as irrigation and are a routine practice to conserve flows within waterbodies during summer.
9. It is possible reduced flows in waterbodies will reduce the availability of water for stock where alternative sources of water are not available.

CLIMATE AND ENIVRONMENT

[No Change]

Rainfall

10. Rainfall over the previous fortnight has been varied, with parts of Hurunui, Wellington, Masterton, and Tararua districts receiving meagre rainfall amounts of less than 5mm. Rainfall in central Otago, central and northern Canterbury, Marlborough, Wellington, parts of Manawatū-Whanganui, and the much of the North Island (excluding the Central Plateau, Tairāwhiti/Gisborne, Hauraki/Bay of Plenty, and northern Northland) was also below average.
11. Recent rainfall in other areas have provided a boost to the growth of winter crops, although continued rainfall during summer and autumn will be required to sustain growth.
12. Recent heavy rainfalls in Fiordland and West Coast resulted in a red heavy rain warning being issued by MetService for Westland District between 18-20 January and a local State of Emergency declared in the district on Friday 19 January and the closure of State Highway 6 between Ross and Makarora overnight. No impacts have been reported or are otherwise known from these events.

Dry conditions

13. Very dry conditions are present in southern Manawatū-Whanganui, Wellington, Marlborough, parts of Canterbury, and inland Otago, while isolated areas of meterological drought have appeared in southern Marlborough and northern Canterbury (Fig. 1).
14. Areas currently experiencing dry conditions routinely experience summer dryness and farmers and growers in these areas adopt management practices to mitigate the impacts of dry conditions, including the use of supplementary feed and adjusting milking schedules on dairy farms.
15. Figure 1 shows the latest New Zealand Drought Index and a comparative image from 12 months ago.
16. With the exception of Wairarapa District, areas impacted by and recovering from severe weather events in early-2023 are not currently experiencing very dry conditions or above, and no significant impacts due to dry weather have been reported in these areas.

[3] District and Regional Council water restriction information/data

Long-term outlook

17. The NIWA35 Drought Forecasting tool shows dry to extremely dry conditions in the lower North Island and upper South Island are likely to continue into February (Fig 2.) with rainfall likely to be variable until the end of February (Fig 3.).
18. NIWA forecasts the El Niño weather pattern will continue through March, although its influence on climate is challenging to forecast due to unusual ocean temperatures. Rainfall is likely to be more variable compared to previous El Niño weather patterns, with increased wind strength and above average temperatures[4].

Fire risk

19. Dry conditions bring an increased risk of wildfires that pose a hazard to people and livestock, and damage or destroy infastructure, farm machinery/equipment, crops, and feed supplies. Fire and Emergency New Zealand has placed areas in the central South Island, northern South Island, and southern North Island on prohibited fire season status, with many other regions placed in restricted fire seasons in order to reduce risk.
20. MPI is aware of several wildfires over the previous fortnight, particularly in north Canterbury and the Mackenzie Basin where large fires on farmland burnt through pasture or vegetation and damaged or destroyed farm machinery or equipment. Fire and Emergency New Zealand responds to multiple vegetation fires each day and responds to around 4,400 wildfires per year[5].
21. Fire and Emergency New Zealand has updated its seasonal fire danger outlook for January 2024, indentifying and increased risk of above normal fire potential in the Mackenzie Basi, with slightyly above noraml wilfire risk in the central and northern South Island and eastern Wellington and Tararua coasts.

[4] NIWA Climate Outlook January 2024 – March 2024
[5] FENZ New Zealand Wildfire Summary and Incident Reports

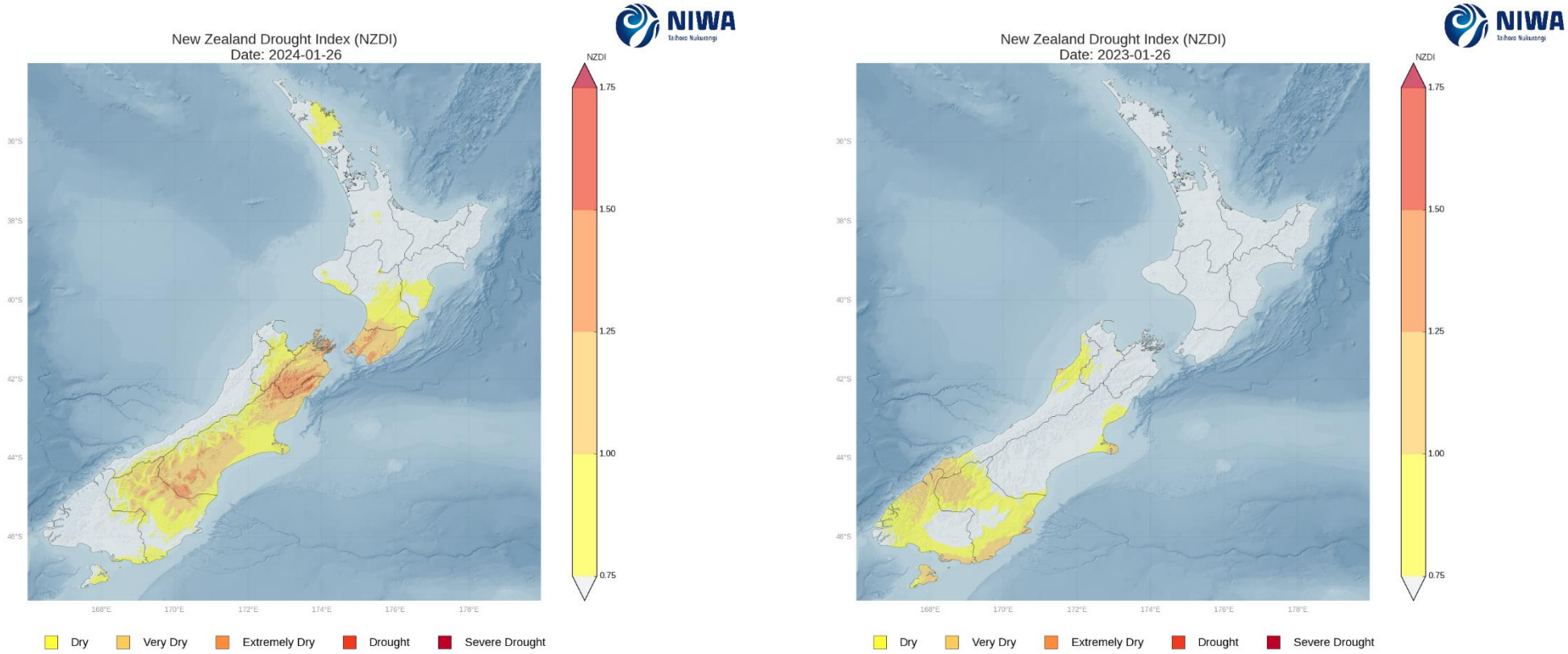

Figure 1. New Zealand Drought Index (NZDI) image from 23 January 2024 (shown left) compared to 23 January 2023 (shown right).

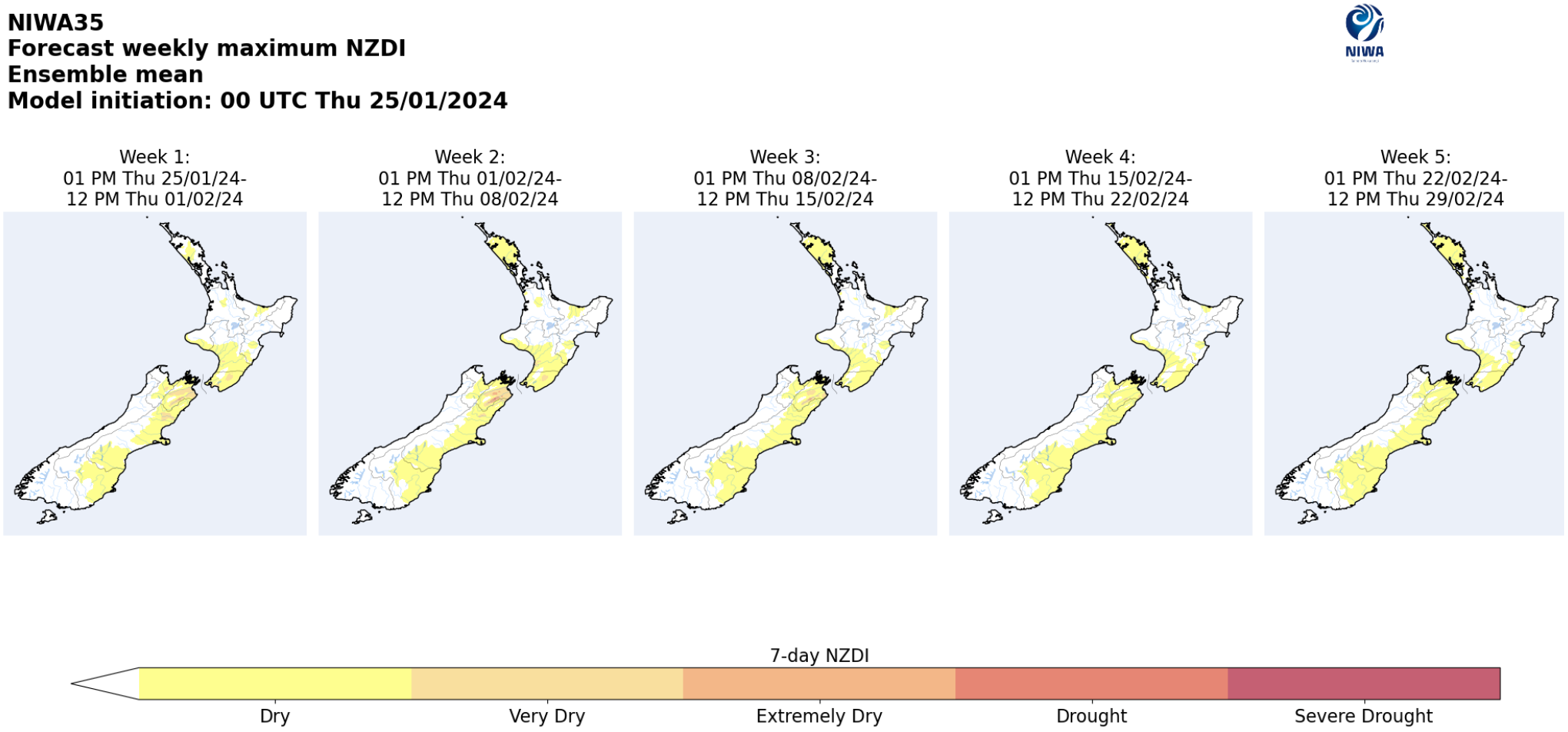

Figure 2. NIWA Drought Forecasting Dashboard – NZDI forecast image 25 January 2024

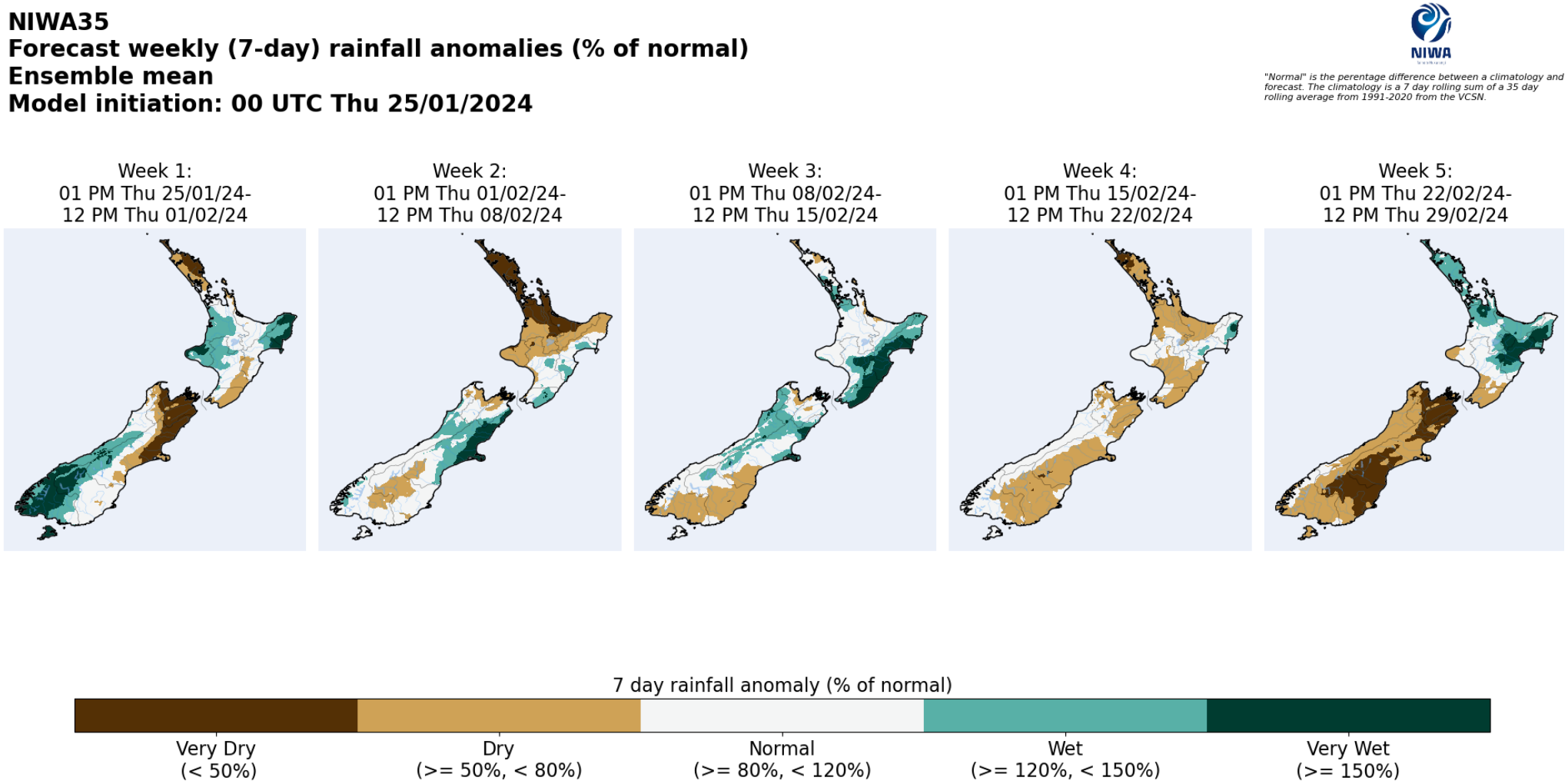

Figure 3. NIWA Drought Forecasting Dashboard – Rainfall anomaly forecast image 25 January 2024

COSTS, COMMODITY PRICES, AND INPUTS

[No Change]

22. Commodity prices continue to remain flat across multiple sectors, contributing to reduced on-farm/orchard profitability and reduced export prices.
23. Global Dairy Trade (GDT) prices have seen some recent improvement during the most recent auction on 16 January and Fonterra's current farmgate milk price forecast range for FY24 is $7.00-$8.00 per kg/MS with a mid-point of $7.50.

Dairy[6]

Indicator	Updated	Unit	Latest Value	Previous Value	Change (%)	Value 12 Months Ago	Annual Change (%)
GDT Index	16-Jan-24	Index	1,061	1,038	+2.3%	1,030	+3%
Whole Milk Powder	16-Jan-24	$USD/t	$3,353	$3,290	+2%	$3,208	+5%
Skim Milk Powder	16-Jan-24	$USD/t	$2,638	$2,613	+1%	$2,838	-7%
Cheddar Cheese	16-Jan-24	$USD/t	$4,217	$4,165	+1%	$4,690	-10%
Anhydrous Milk Fat	16-Jan-24	$USD/t	$5,842	$5,595	+4%	$5,395	+8%

Lamb and Beef[7]

Indicator	Updated	Unit	Latest Value	Previous Value	Change (%)	Value 12 Months Ago	Annual Change (%)
Lamb – North Island (18kg)	26-Jan-24	$NZ/kgCW	$6.00	$6.00	-	$6.95	-13.7%
Mutton – North Island (25kg)	26-Jan-24	$NZ/kgCW	$2.55	$2.55	-	$3.70	-31%
Lamb – South Island (18kg)	26-Jan-24	$NZ/kgCW	$5.80	$5.90	-1.7%	$6.65	-12.8%
Mutton – South Island	26-Jan-24	$NZ/kgCW	$2.20	$2.25	-2.2%	$3.40	-33.8%
Steer – North Island (300kg)	26-Jan-24	$NZ/kgCW	$5.65	$5.60	+0.9%	$5.75	-1.7%
Steer – South Island (300kg)	26-Jan-24	$NZ/kgCW	$5.20	$5.20	-	$5.35	-2.8%

[6] Global Dairy Trade Event Results, NZX Dairy Monthly, and Farmers Weekly Publication
[7] Agri HQ Livestock Insight and Farmers Weekly Publication

Grain and Feed[8]

Indicator	Updated	Unit	Latest Value	Previous Value	Change (%)	Value 12 Months Ago	Annual Change (%)
Feed Wheat – Canterbury (Avg.)	12-Jan-24	$NZ/t	$457	$458	-0.2%	$650	-29.7%
Feed Wheat – Manawatu (Avg.)	12-Jan-24	$NZ/t	$580	$580	-	$680	-14.7%
Barley Feed – Canterbury (Avg.)	12-Jan-24	$NZ/t	$431	$437	-1.4%	$645	-33.1%
Barley Feed – Manawatu (Avg.)	12-Jan-24	$NZ/t	$545	$545	-	$710	-23.2%
Oats Feed – Canterbury (Avg.)	12-Jan-24	$NZ/t	$550	$550	-	$600	-8.3%
Maize Grain – Manawatu (Avg.)	12-Jan-24	$NZ/t	$570	$570	-	$762	-25.1%
PKE - Canterbury	12-Jan-24	$NZ/t	$375	$390	-3.8%	$400	-6.3%
PKE - Waikato	12-Jan-24	$NZ/t	$372	$385	-3.4%	$394	-5.6%

Fertiliser[9]

Indicator	Updated	Unit	Latest Value	Previous Value	Change (%)	Value 12 Months Ago	Annual Change (%)
Urea (Avg.)	26-Jan-24	$NZ/t	$897	$897	-	$1240	-27.7%
DAP (Avg.)	26-Jan-24	$NZ/t	$1264	$1264	-	$1297	-2.5%

[8] NZX Grain and Feed Report and Farmers Weekly publication
[9] NZX Grain and Feed Report and Farmers Weekly publication

WELLBEING AND MORALE

[No Change]

24. Morale for primary producers remains lower than average with high debt servicing costs/financial pressures, low payouts and commodity prices being some of the challenges currently faced by farmers and growers[10].
25. Rural Support Trust overall call volumes decreased 14% between November and December 2023, with call volumes for December 2023 similar to December 2022[11]. Call volumes alone do not necessarily relate to overall case numbers as Rural Support Trusts receive cases through other channels such as referrals, although there has not been a reported increase of cases related directly to El Niño weather impacts.

[10] Industry reporting, RST reporting, conversations, and observations by MPI staff, and media reporting.
[11] RST 0800 call statistics

ACTIONS CARRIED OUT (WHAT MPI HAS DONE)

26. Throughout 2023, MPI's focus was on early preparedness, including working with rural stakeholders and other government agencies. Farmers and growers were encouraged to plan for and mitigate risks early where they could, and several factsheets and social media posts were also made with advice on how to prepare.
27. A finalised version of the NIWA 35 drought forecasting tool, developed by NIWA and MPI, was made available on the NIWA website, allowing for improved forecasting of dryness and drought down to district-level.
28. MPI has published a factsheet to help lifestyle and small block owners prepare for a hot, dry summer alongside the updated Preparing for El Niño Factsheet and Feed in Dry Times Factsheet.

INTENDED ACTIONS (WHAT MPI IS PLANNING TO DO)

29. Ongoing monitoring of conditions and ongoing support of MPI's readiness for drought and other El Niño related hazards will continue as well as planning for escalation to a response if required through the drafting of a Phase Two Action Plan.
30. MPI will continue to engage with other agencies and stakeholders to assist in the coordination and management of wider drought and El Niño impacts and support responses as needed, this includes the continued development of regional action plans and reactivating or establishing drought committees at the regional and local level where appropriate.
31. MPI continues to promote preparedness for El Niño weather event related impacts, including managing to dry conditions, and contributing to All-of-Government messaging.

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Distribution	**INTERNAL and EXTERNAL**
Next Situation Report due	15 February 2024

This report uses standard intelligence methodologies including probabilistic (or estimative) language to communicate uncertainty that an explanation or predication is correct. Probability statements and percentage probabilities are outlined below.

Highly Unlikely	Unlikely	Possible	Likely	Highly Likely	Almost Certain
<10%	15-20%	25-50%	55-70%	75-85%	>90%

This situation report provides a high-level national summary at the date and time of the report, it is not government policy and should not be used as an indicatation of an Adverse Event Classification under the Primary Sector Recovery Policy, unless explicity stated.

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