Field Notes

Looking upstream at the farmer mental health crisis in Canada

Zsofia Mendly-Zambo

www.policyalternatives.ca

DECEADOR

ANALYSIS

SOLUTIONS









ISBN 978-1-77125-658-2

This report is available free of charge at www.policyalternatives.ca.

PLEASE MAKE A DONATION...

Help us to continue to offer our publications free online.

With your support we can continue to produce high quality research—and make sure it gets into the hands of citizens, journalists, policy makers and progressive organizations. Visit www.policyalternatives.ca or call 613-563-1341 for more information.

The CCPA is an independent policy research organization. This report has been subjected to peer review and meets the research standards of the Centre.

The opinions and recommendations in this report, and any errors, are those of the authors, and do not necessarily reflect the views of the funders of this report.



ABOUT THE AUTHOR

Zsofia Mendly-Zambo is a researcher and PhD Candidate in Health Policy and Equity at the school of Health Policy and Management at York University. Her areas of research include health equity, social inequality, farmer mental health, and food security.

ACKNOWLEDGMENTS

The author would like to thank Mara Shaw, Cathy Holtslander and Trish Hennessy for their support in creating this report, and a special thank you to the contributors and reviewers— Mara Shaw, Cathy Holtslander, Darrin Qualman, Paul Wartman and Brooke Hayes—from the NFU for their thoughtful input.

Field Notes

- 4 **Executive summary**
- 7 **Introduction**
- 9 Social determinants of health: a framework for understanding mental health
- 10 Methods
- 11 A snapshot of the mental health of Canadian farmers
- 13 Economic uncertainty: a key factor impacting farmers' mental health
- 16 The Canadian situation
- 18 Corporate concentration and the cost-price squeeze
- 20 Farm labour
- 21 Farm consolidation and rural de-population
- 23 Financialization of farm land
- 24 Global markets and trade liberalization
- 26 Climate change
- 28 **Diversity, inclusion and reconciliation**
- 30 **Conclusion and recommendations**
- 36 **Appendix**
- 40 Notes

Executive summary

ACROSS CANADA, farmers are experiencing declining mental health. Producers have higher rates of stress, depression and anxiety compared with the general population. The issue is so pervasive that it has been described as a mental health crisis. Efforts for improving the crisis have predominantly focused on increasing access to mental health care, providing education and resources, as well as campaigns aimed at reducing stigma, in addition to other efforts. While these efforts are crucial for improving the health and well-being of farmers, they remain focused on the downstream impacts of the problem and as such are inadequate to address the underlying or upstream causes of poor farmer mental health, particularly with regards to economic and financial uncertainty and climate breakdown. The purpose of this report is to provide an overview of the key upstream contributors to the mental health crisis in order to inform future research and policy action.

To understand the key underlying, or upstream, causes of poor mental health in the farming sector, a literature review followed by interviews and focus groups with members of the National Farmers Union (NFU) was conducted. Participants who were not able to attend focus groups were invited to contribute input via survey (n=21).

At the heart of the farmer mental health crisis is pervasive economic uncertainty and precarity. Key factors contributing to the economic precarity of farmers and farm workers include unfettered corporate concentration in the food sector, consolidation and financialization of farmland, climate change, and trade liberalization. Input from the National Farmers Union revealed

additional factors contributing to poor mental health, including economic and knowledge barriers to farming, intensified political polarization within rural communities, racism, and violence against women. Burnout and lack of ancillary and core health care services were also noted contributors to stress.

Based on these findings, this report makes the following six recommendations:

Recommendation 1: Implement policies that enhance economic stability for farmers and farm workers. Since economic instability is a key driver of poor mental health, implementing policies to enhance economic stability for farmers and farm workers is critical. These include policies that address key drivers of economic uncertainty, including the cost-price squeeze, commodity volatility, corporate concentration and the climate crisis. Stronger competition policies, in particular, would foster a more equitable distribution of power within the food system.

Recommendation 2: Continue and enhance supports to farmers transitioning to sustainable farming practices. Support farmers as they transition from the current industrial agri-food system towards one that is sustainable and resilient in the face of the current climate crisis. Promoting the adoption of sustainable farming practices and agro-ecological approaches would reduce greenhouse gas emissions and enhance crop productivity, soil fertility, and biodiversity.

Recommendation 3: Include food sovereignty in the federal goals for agriculture. The Canadian government should be facilitating the growth of sustainable and local food systems. One such way is to support food sovereignty, which would help create a sustainable and local food system that prioritizes the health and well-being of farmers, farm workers, communities, and the environment.

Recommendation 4: Rebuild rural infrastructure. To counter intensifying rural de-population in agricultural communities across Canada, governments at all levels need to revitalize and rebuild rural infrastructure, including schools, hospitals, and transportation and communication systems. Regional investments and programs aimed at repopulating and sustaining rural infrastructure will help promote mental health and social cohesion.

Recommendation 5: Address on-going discrimination and violence in the farming sector. In order to make an inclusive farming environment, governments must take meaningful action against violence towards Indigenous, Black, and racialized groups as well as 2SLGBTQ+ individuals, women, and other equity-deserving groups. Every farmer deserves dignity, respect and to feel safe and secure in their work. Considerable effort is needed to make farming a more inclusive and equitable industry.

Recommendation 6: Expand access to mental health care for farmers and support existing farm organizations that are providing support, advocacy, and research. To support farmers while making the systemic changes needed to address the upstream causes of poor mental health, governments should significantly increase investment in mental health supports, and ensure inclusivity for all farmers and farm workers, including Black, Indigenous, and 2SLGBTQ+ communities.

Meaningful action is needed to improve the living and working conditions of Canadian farmers. A comprehensive approach that considers the upstream drivers of farmer mental health will help foster a more resilient and sustainable agricultural sector while improving the well-being of farmers across Canada.

Introduction

ACROSS CANADA, FARMERS are experiencing declining mental health. Farmers face high rates of stress, depression and anxiety and a number of challenges, including climate change, economic precarity, debt, overwork, isolation and lack of access to appropriate mental health services. Poor mental health among farmers is so pervasive that it has been described as a mental health crisis, one that has gained the attention of federal and provincial governments, the media and farm organizations.

In response to the crisis, efforts are underway to help improve the mental health of farmers, including providing increased access to mental health services through programs like Agriculture Wellness Ontario, Manitoba Farmer Wellness and other counseling or help line programs, as well as education and resources for farmers and community members. Media campaigns from Do More Agriculture, for example, have been helpful in reducing the stigma surrounding mental health in farming communities and advocating for more resources and supports. At the federal level, the Canadian House of Commons Standing Committee on Agriculture and Agri-Food's report, Mental Health: A Priority for Our Farmers, included a list of 10 recommendations for the government to respond to the issue, some of which have been acted upon by provincial and federal governments.

While these efforts are crucial for improving the health and well-being of farmers, they remain focused on the downstream impacts of the problem, emphasizing individual self-care or mental health care interventions for those who are struggling. These approaches, however, do little to change the underlying or upstream causes of poor farmer mental health, particularly with regards to systemic economic and financial uncertainty and climate breakdown. At the heart of the mental health crisis is a much larger issue of economic uncertainty and precarity, in which farmers are faced with increased debt and are vulnerable to volatile global markets. Financial uncertainty is a well-established driver of poor mental health, but the root causes of financial uncertainty are often left out of larger discussions. Too often, financial and economic uncertainty, as well as extreme weather, are treated as just another 'fact of farming' and not seen as something that has been created and worsened by both active policies and policy inaction at all levels of government.

The purpose of this report is to explore some of the key underlying, or upstream, causes of poor mental health in the farming sector using recent literature and input from members of the National Farmers Union (NFU) from across Canada. This report begins with an overview of the mental health of Canadian farmers and looks at economic uncertainty, a key driver of poor mental health. It then looks upstream at some of the main factors contributing to economic uncertainty, including increased corporate concentration in the food sector, consolidation and financialization of farmland, as well as other factors, including climate change and racism. Finally, recommendations for improving farmer mental health are provided and include enacting policies for enhancing economic stability for farmers, increasing supports for farmers transitioning to ecologically sustainable practices, rebuilding rural infrastructure, incorporating food sovereignty in the federal goals for agriculture, addressing ongoing discrimination and violence in the farming sector and expanding resources to support farmers' mental health.

Social determinants of health: a framework for understanding mental health

THIS REPORT USES a social determinants of health (SDH) framework for understanding farmer mental health. Briefly, the social determinants of health refer to a broad range of societal factors in which people are born, grow, work and age—factors that shape health.²⁻⁴ Inequalities in health are understood to exist because of the unequal distribution of the social determinants of health.5 Increased economic resources, for example, will allow a person to access better housing, food, and experience less overall stress which will lead to better health overall.6

The concept of SDH is perhaps best exemplified in John McKinlay's analogy of upstream and downstream approaches to health-inspired by the sociologist Irving Zola's anecdote about a doctor who would jump in a river to save a patient, but never went up the river to understand why the patients fell in the river in the first place. As such, the term downstream is an analogy for medical and patient care, while upstream refers to the larger determinants that shape people's living and working conditions. This paper seeks to examine the upstream SDH, which, as Braveman and colleagues (2011) note, are the factors that play a "fundamental causal role and represent the most important opportunities for improving health and reducing health disparities."

Methods

This research was conducted in two phases. The first phase included a comprehensive literature review on the topic of farmer mental health in Canada, drawing from both academic and grey literature. Next, focus groups and interviews with farmers belonging to the NFU across Canada were conducted (n=6). Participants who were not able to attend focus groups were invited to contribute input via survey (n=15). Although the data collection was open to all members of the NFU, a majority of the respondents were from the NFU's BIPOC, and Women's & Youth caucuses. This sample is likely skewed towards farmers and farm workers from predominantly small- and medium-sized farms, although demographic data was not collected. Their input was instrumental in uncovering additional themes and issues related to farmers' mental health and they helped identify areas for future policy change and action (see Appendix).

A snapshot of the mental health of **Canadian farmers**

RECENT RESEARCH BY Jones-Bitton and colleagues,8 reveal that 57 per cent of Canadian producers surveyed met the criteria for having anxiety and 34 per cent met the criteria for depression. This study also found that 45 per cent of farmers had high levels of perceived stress. These rates were noted to be higher than both the general population of Canada, as well as farmers in several other countries. A separate nationwide study on farmer mental health found that 62 per cent of farmers who participated were categorized as having mid-level stress scores, and 14 per cent had high stress scores. Women were more likely to report having high stress, as were younger farmers.9 The COVID-19 pandemic proved difficult for farmers, who fared worse than the general population in terms of stress and anxiety and other mental health measures, and this effect was again more pronounced in women farmers.10

Mental health is an important part of our overall health and well-being. Having good mental health is associated with happiness, work satisfaction, positive self-esteem and helps individuals realize their potential and contribute to society. Poor mental health, however, can lead to a variety of health problems, including high levels of anxiety and depression, as well as headaches, difficulty sleeping, memory loss, and difficulty with decisionmaking.^{12, 13} Stress in farming populations has been linked to an increase in the rate of farm work injuries, 14, 15 increased risk of suicide 16 and it can have negative impacts on the welfare of farm animals.9 Anxiety and depression may impact the ability of producers to work effectively, lowering farm productivity,8 which can cause further stress and anxiety. Finally, chronic stress can lead to burnout—a condition that gradually develops and may cause mental and physical exhaustion, a cynical attitude towards work, and a decrease in professional self-esteem.¹³ In Canada, research has found that 12 per cent of farmers surveyed were classified as experiencing burnout and many more were on the verge of burnout. Among other attributes, burnout may negatively impact work life because it is associated with absenteeism and presenteeism (working while ill) and lowered job satisfaction.¹⁷

Farmers have also been found to have higher rates of suicide compared with non-farming populations in numerous countries, including¹⁸ Australia¹⁹ and the United States.20 Statistics Canada, however, does not include occupation when reporting rates of suicide. For this reason, it is difficult to estimate the true scope of farmer suicides in Canada. Anecdotal evidence from news articles and other sources provides a powerful testament to the problem of suicide in the farming population.21, 22 The Canadian House of Commons Standing Committee on Agriculture and Agri-Food released a 70-page report entitled Mental health: A Priority for our Farmers, delivered to the Canadian House of Commons in 2019. The report was a culmination of 12 public meetings with testimony and written briefs from stakeholders across sectors, including farm organizations, mental health groups and researchers regarding farmers' mental health and included testimony from farmers who spoke about the "pervasiveness of suicide in their community or family." In one testimony, an agriculture producer recounted that in a meeting with approximately 400 other producers, the majority had raised their hand when asked if they had lost a friend or family member to suicide.²³

Economic uncertainty: a key factor impacting farmers' mental health

FARMERS FACE A variety of challenges that can adversely affect mental health, including increasingly unpredictable weather exacerbated by the climate crisis, volatile prices, high debt, other financial stresses, isolation, and overwork, as well as a lack of services, including mental health services. 8, 23-25 Financial difficulties and economic uncertainty are often primary contributors to poor mental health among farmers.²⁶⁻³⁰ Financial stress is not uniform and can be caused by a number of different factors, including increased costs of inputs, difficulties with cash flow, debt, fluctuating market prices for crops and livestock, as well as increases in non-farming issues including health care costs, and taxes.13

Financial stress, however, is not uniform across Canadian farms due to the wide diversity in farm size, type, operation and other factors. As a result, different farms are encountering very different financial situations. For example, over the past decade, many larger, established grain-and-oilseed farms (though certainly not all) have been profitable—earning positive returns in most years. Although this does not indicate a lack of structural economic problems in the sector, since much of this seeming prosperity has occurred as a result of billions of dollars annually being transferred from taxpayers to farmers via Business Risk Management (BRM) payments: Crop Insurance, AgriInvest, and related programs. Also, these same farms, even as many reaped positive returns, were also burdened with rapidly rising debt loads and buffeted by often high and volatile input prices. Even on farms where the profit picture is generally positive, large financial losses are possible in any given year.

Even as some larger farms have managed to earn positive returns, many smaller or newer grain farmers have struggled financially, grappling with high and fast-rising land, machinery, and input costs and heavy debt loads. Key to understanding farming and farmers' mental health is to understand that, as in the larger economy, inequality is increasing. Thus, even in years when the largest and richest farms experience significant prosperity, others struggle or are forced to give up. While it was once true that most farmers in a region experienced roughly comparable financial stresses, there is now an increasing divide between the haves and have-nots.

And it is not just farm size that plays a role: farm *type* is also key. While many larger grain-and-oilseed producers have been able to generate positive returns over the past decade-and-a-half, many cattle producers—even large and long-established operations—have struggled (Figure 2). Partly as a result of corporate concentration and resulting low prices, cattle farmers have struggled in most years over the past four decades. Stress and mental health impacts have predictably followed. Many farmers have been forced to exit cattle production and, as a result, the Canadian herd is contracting.

Many small and new farms—often operations with a diverse mix of crops and livestock or those producing fruits and vegetables—also continue to struggle, facing multiple financial challenges: exorbitant land prices, burdensome debt, volatile prices, difficulty accessing markets, labour shortages, and cash flow crises.31

Canada is home to hundreds of thousands of farms, ranging in size, production systems, and locations: from small goat farms in B.C. to large potato farms in P.E.I. Many of those farms face financial challenges. Partly as a result, tens of thousands of farmers will decide (or be compelled) to exit agriculture in coming decades. Many of those who stay will face significant anxiety, stress, depression, and other mental health impacts.

The linkages between economic uncertainty and its impact on farmers' stress and mental health is not new. Studies on the 1980s farm crisis in the U.S. found financial strain was significantly associated with poor mental health, including depression.³² In the Canadian setting, researchers have found that financial uncertainty had the biggest negative impact on the physical health and physiological well-being of farm families, leading to high levels of stress and overwork.33 Indeed, financial and economic uncertainty, including rising cost of inputs and variability in commodity pricing, is a commonly cited stress for farmers²³ and current research has shown that financial stress was the single most significant factor associated with increased perceived stress in Canadian farmers.34

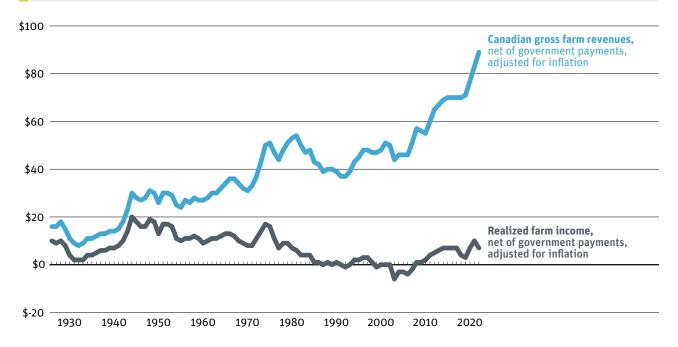
Debt load "combined with the risk farmers are taking on their own livelihood to continue farming" was reported by one survey respondent to be a root cause of poor mental health for farmers. Furthermore, they elaborated: "All of the risk of producing food is put on the farmers, while all of the protection and profits go to large corporations. It makes the hard work feel futile some days..." (SR 03).

The Canadian situation

FARMERS ALSO FACE the "cost-price squeeze": the price of the inputs that many farmers need to buy (fuel, fertilizer, chemicals, veterinary drugs, machinery, repair parts, etc.) rises faster than the price of the agricultural products that farmers sell (with those latter prices often falling rather than rising). Over the past 50 years, the price of farm inputs has increased nearly twice as fast as farm product prices, resulting in farm products often being sold below the cost of production.³⁵ Even when products can be sold at a price that covers costs, farmers' margins (i.e., the amounts they have left over after paying all expenses) are diminishing with each passing decade. As farmers' per-acre margins fall, farmers must farm more acres in order to stay on their land. Farmers' margins have been cut by about four-fifths over the past five decades (from about 35 per cent to less than seven per cent) (see Figure 1) and those falling margins are part of what pushes farmers to expand their farms. If farmers are able to keep fewer dollars per acre to support themselves and their families, they are forced to farm more acres. This, in turn, can lead to increasing debt loads and subsequent anxiety. As margins fall and farmers are pushed to cover more acres, farmers are, in effect, on a treadmill—relentlessly spurred to run faster and faster (see Figure 1).

Figure 1 illustrates the results of the cost-price squeeze in terms of falling margins. Although farmers have doubled and redoubled their revenues, rising input costs have meant that farmers' net incomes have risen little or not at all. For every dollar farmers earn, they keep on average only about seven cents, and the remaining 93 cents goes towards paying costs. Farmers





Source Statistics Canada, Tables 32-10-0052-01 and 32-10-0045-01.

are keeping a smaller and smaller share of revenue and their margins are falling.³⁶ On such thin margins, economic reversals and large losses are always a real possibility, fueling ambient anxiety.

As margins have fallen, debt has risen. Canadian farm debt was \$139 billion in 2022—more than double the 2011 amount.³⁷ Although debt is not a new part of farming, the amount of debt taken on by farms is. For example, the debt-to-income ratio for farms in the 1970s was only 3.4, but in the early 2000s that ratio rose to 23, i.e., for every \$1 of net income farmers had on average \$23 of debt.38 Though ratios have moderated somewhat in recent years as average net income has rebounded, overall debt burdens remain high. Furthermore, the average interest farmers pay to lenders is roughly equal to what farmers receive through government support programs, meaning that taxpayer money is effectively subsidizing banks and lenders.³⁶ To manage this increasing debt, 48 per cent of farmers reportedly worked off-farm in 2020 as a means of supplementing their income.³⁷ Even with a second income, farms are left in a precarious financial position, particularly now as interest rates continue to rise. Furthermore, one interviewee discussed how debt was eroding the equity of their farm. They said "even inheriting land does not secure your ability to stay viable" because farmers are taking on large amounts of debt to manage the rising costs of inputs and the need to expand operations (IR o1).

Corporate concentration and the cost-price squeeze

CORPORATE CONCENTRATION IS a significant contributor to the cost-price squeeze:39 a few firms control a sector, with the result that their prices and profits are not disciplined by competition and they can profiteer at the expense of farmers. Corporate concentration is occurring in nearly all sectors of the agri-food system, including wholesaling, retailing, food production, farm inputs (fertilizers, equipment, seeds and others) and transportation. 40, 41

Corporate concentration drives the cost-price squeeze as a concentrated food system results in few choices for farmers with regards to purchasing inputs and few choices for selling farm commodities. Prices for farm inputs have steadily increased while prices paid at the farm gate have often stagnated or declined. With the exception of individual farms and producers, nearly all sectors of the food system are becoming controlled by fewer and fewer corporate firms. In 2020, for example, only four companies controlled 51 per cent of global market seed sales, and 62 per cent of agrochemical sales. For farm equipment, the top four companies account for over 44 per cent of global market share, with Deere & Co. alone accounting for 17.5 per cent of market share. 44 The ETC Group reports that only 25 years ago, the top 10 seed companies owned 46 per cent of the seed market share. In 2022, only two companies, Bayer and Corteva Agroscience, now control 40 per cent of

What defines a concentrated market?

The measurement CR4, or concentration ratio, is used to gauge the level of concentration in a given market. If the top four firms control at least 40 per cent of the market share, it is considered a concentrated market, while controlling 60 per cent of market share is considered a highly concentrated market. 42, 43

the seed market, ⁴⁴ indicating that corporate concentration is at an unprecedented high. Although producers with large farms may have some ability to negotiate prices for inputs as they purchase in higher volumes, on the whole, farmers have little to no bargaining power. They are considered price takers on both the cost of inputs and the price at which they can sell their products. ⁴⁵

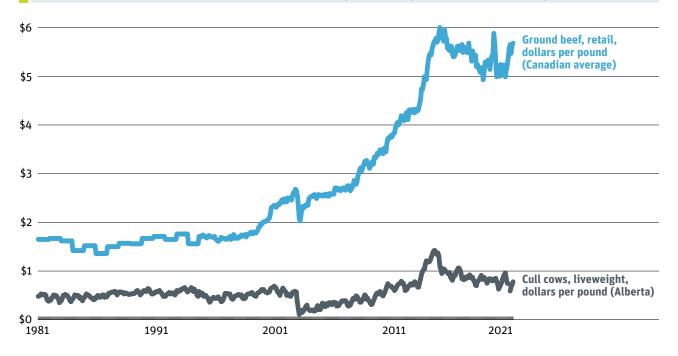
One survey respondent noted the precarity farmers are faced with due to the cost-price squeeze. They wrote: "Expenses that are high and always rising means the farm is at stake with every growing season." (SR 03) In addition, members of the NFU

Youth Caucus discuss how increased corporate control in both the food system and of land from companies like Loblaws and Bill Gates' Cascade Investment are creating stress and "feelings of hopelessness against such huge forces." (SR 02)

In Canada, the beef processing sector is highly concentrated. Only two packing plants—one owned by Cargill and the other owned by JBS—account for 95 per cent of the beef processed in the entire country.⁴⁶ This highly concentrated industry came to public attention during the beginning of the COVID-19 pandemic, which saw closures of these key beef processing plants. The closures created delays and backlogs up the beef supply chain, which cost farmers millions in lost revenues and extra costs.⁴⁷

Furthermore, in order to gain efficiencies throughout the supply chain and capture more profit, agri-food corporations are becoming more and more integrated into the food supply chain.⁴⁸ The beef sector is no exception. Beef processors have what is called captive supply, where they have acquired feedlots that supply their slaughter facilities, allowing them to depress the price of cattle that are sent to their packing plant. Farmers, who are already faced with few choices of buyers for their beef, have little choice but to accept these depressed prices.⁴⁹ Figure 2 demonstrates the disparity between what farmers receive for the cattle and the price consumers pay at the grocery store.

FIGURE 2 Concentration in the beef sector: farm gate cattle prices and retail beef prices, 1980-2022



 $\textbf{Source} \quad www.nfu.ca/grocery-prices-are-rising-and-farmers-share-declining-as-corporate-processors-and-retailers-take-more-and-more/share-declining-as-corporate-processors-and-retailers-take-more-and-more/share-declining-as-corporate-processors-and-retailers-take-more-and-more/share-declining-as-corporate-processors-and-retailers-take-more-and-more/share-declining-as-corporate-processors-and-retailers-take-more-and-more/share-declining-as-corporate-processors-and-retailers-take-more-and-more/share-declining-as-corporate-processors-and-retailers-take-more-and-more/share-declining-as-corporate-processors-and-retailers-take-more-and-more/share-declining-as-corporate-processors-and-retailers-take-more-and-more/share-declining-as-corporate-processors-and-retailers-take-more-and-more/share-and-more-and-m$

Farm labour

Difficulties associated with farm labour emerged as another prominent theme in the discussions with farmers, particularly with regards to wages and accommodations. Agriculture work is often low paid. In the province of Ontario, for example, farm labour is not regulated by minimum wage laws and farmers are not covered under the Ontario Labour Relations Act, meaning they do not have the same rights as other workers to unionize and collectively bargain.⁵⁰ Survey respondents from the NFU Youth Caucus noted that low wages are particularly difficult for young farmers who grapple with whether it is viable for them to stay in farming. This uncertainty is captured by one farmer, who wrote, "...definitely something impacting my mental health is the inability of my employers to offer me living wages and benefits. When I think about the future, I get scared because I know I'm wearing down my body and not putting enough away into savings—but I love it so I keep doing it." (SR 04) Another survey respondent wrote:

"Although I usually feel financially secure enough once I've found a farm job for the season, it's hard to find farm work that pays a living wage, let alone to be able to put money aside for future dreams of buying land to

farm, and knowing how hard it would be to ever find land and to start a farm if I decided to do that. That uncertainty has certainly impacted my mental health." (SR 08)

The inability to pay a living wage is also a source of stress for farmers who employ farm workers. As one farmer wrote, "It's nearly impossible to make a living as a farmer without exploiting workers or the land. Even then...we need to find off-farm jobs to supplement incomes." (SR o6)

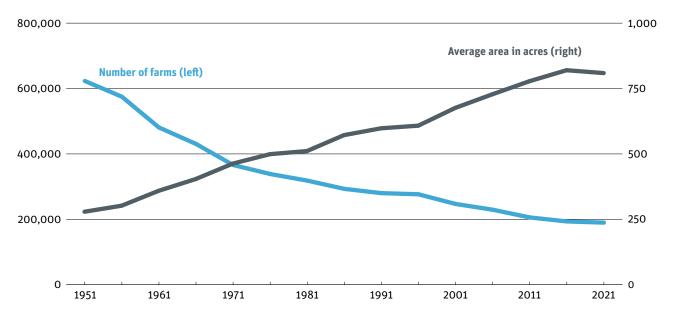
Accommodations and housing were another important determinant of mental health for farm workers, as housing was described as inadequate and unaffordable. As noted by one farmer, "My on-farm accommodations were partly un-insulated and pest-ridden. This took an enormous toll on my mental health." Furthermore, finding affordable off-farm housing was difficult and described as being "super stressful." (SR o4) These findings echo previous research in Ontario, which found that one in eight farm operators and one in four farm worker respondents believed a lack of quality, accessible housing was a barrier to pursuing a career and hiring in agriculture. They note that the shortage of on-farm and rural housing is, in part, the result of municipal and county bylaws and regulation that prevent on-farm housing.50

Farm consolidation and rural de-population

One way of overcoming diminishing margins has been to increase farm operation capacity by renting or buying additional land and additional equipment. This has contributed to the significant growth in the average size of Canadian farms, which was 820 acres in 2016, compared to 463 acres in 1971.51 Larger farms now capture a majority of operating revenue, with the top 10 per cent generating over two thirds of all.⁵² While farms are becoming bigger in terms of employees, land and sales, the number of small and mid-sized farms is continuing to decline (Figure 3).37 Between 1981 and 2021, the number of farms has decreased by 40.4 per cent.⁵³

The aging farming population has also accelerated the decrease in the number of farms. In 2021, the average age of the Canadian farmer was 56 years and the median age was 58 years, compared with a general population in which the median age was 41.6 years. Operators under the age of 35 represent only 8.6 per cent of the Canadian farming population. Between 2011 and 2021, the number of farm operators declined by 11 per cent.^{37, 54} Fewer farms, coupled with changes in technology—which have reduced labour requirements, further increasing the share of farming returns going

FIGURE 3 Number of farms and farm size in Canada, 1951-2021



Source Statistics Canada. Table 32-10-0153-01 Land use, Census of Agriculture historical data.

to the corporate sector—have contributed to de-population in rural and farming communities. Rural de-population increases the geographical and social distance between neighbours⁵⁵ and is a significant contributor to poor mental health in the farming population. In Australia, farmers living in remote areas had worse mental health and overall well-being compared with non-farming populations, regardless of other factors, including isolation, financial hardship or recent adverse events.⁵⁶ In Japan, researchers found that regardless of type of farm, farmers living in neighbourhoods where farm density was low had a higher prevalence of depressive symptoms.⁵⁷ In the Canadian prairies, rural de-population was found to decrease farmer's social capital, including a decrease in social relationships, networks and connections, all of which can be assets to draw upon in times of need.55 The decrease in social capital was especially problematic in face of climate change, where, for example, one would have previously drawn on the support of neighbors in times of emergency, such as an on-farm fire. Social isolation and rural de-population make this kind of mutual aid more difficult and has also impacted the informal economies of reciprocity that are often essential to sustaining these communities.

Rural de-population has had negative impacts on local economies as well, precipitating a loss in rural business and services,⁵⁵ including the closure of

schools, hospitals and transportation services. Without a nationalized bus network, for example, it is difficult for individuals to travel to work, escape abusive situations or access necessary health or social access services, particularly for those with low income.^{58, 59} Decreases in health services, including mental health services, further worsens the mental health crisis in rural areas. This is especially the case when one considers the health care needs of an aging farm population. As one NFU farmer wrote in their input to this report, "farmers and farm workers are often both culturally and geographically isolated, making it difficult to seek help when it's needed." They also noted that this is particularly the case for BIPOC and 2SLGBTQ+ individuals as "isolated farming communities can sometimes be uncomfortable or even dangerous to [their] physical and mental health." (IR 02).

Finally, as rural populations decline, so does the political voice of this population.³⁵ Declining local economies and services, coupled with a sense of political marginalization and feelings of loneliness contribute to social or regional isolation, also known as "geographies of discontent," which can drive right-wing populism. 60, 61

Financialization of farm land

Farm land is also subject to corporate and financial investment and speculation in a process known as financialization. After the 2007-08 global financial crash, farm land became attractive to investors as a secure and stable asset and a hedge against inflation while providing steady income from rents.⁶² Research on this topic has typically focused on 'land grabs' happening in the global South and the impacts on farmers there. Farm land in the global North, however, is also adversely impacted by financialization, 62 which has been found to contribute to the "homogenization, flattening, and emptying out" of rural landscapes. 63 Furthermore, financialization of farm land exacerbates land inequality, increasing the barrier to entry for new farmers.⁶⁴

In Alberta, Aske (2022) found that financialization of farm land increased the price of farm land above its agri-economic value and increased both tenant farming and rental rates. The practice of tenant farming was seen as increasing the insecurity and precarity of farmers, as well as changing the relationship of farmers with their land, as renting farmers were less likely to invest in techniques that ensured the longevity of the soil. The financialization of farm land is further entrenching current large-scale conventional farming practices, which are energy and emission intensive, simultaneously worsening climate change while making farmers more vulnerable to it.65

In discussions with NFU farmers, land insecurity was also seen as a barrier to organic farming. As one farmer explained, it can take three years to transition from conventional to organic farming, "so if the landowner changes their mind or decides to break a lease after we've put you know, three to five years of work into transitioning it to organic, that's a huge blow...it could completely destroy their business beyond salvation." (IR 01)

Young and new farmers are particularly impacted by both the lack of access to land and secure housing due to the financialization of farm land and housing. Some participants from the NFU Youth Caucus discussed how "everyone they know ha[s] given up on the idea of ever owning land—both in terms of ever purchasing title to land and the colonial practice of owning land." They note, however, that there is interest in alternative land stewardship models that are more cooperative (SR 02).

Global markets and trade liberalization

Current federal agricultural policy continues to be largely guided by the reports arising from the Advisory Council on Economic Growth established in March 2016. These reports prioritize a focus on export markets in agriculture as an engine for the Canadian economy and Canada has been wildly successful in exporting these goods-the value of agricultural and agri-food exports was \$82.2 billion in 2021.66 Despite this, net farm income has not kept pace with the increase in agricultural exports, suggesting that success in exports has not benefited farmers.49

The continuous increase in both the volume and value of Canadian agriculture exports has been facilitated by numerous trade agreements.35 Trade agreements have exposed farmers worldwide to price volatility, with little to no mechanisms to guard against it, such as state trading boards (or marketing boards), production controls or trade restrictions.⁶⁷ Furthermore, trade agreements shift the balance of power in favour of the interests of global corporations over the interests of Canadians and Canadian farmers.⁶⁸

The Canadian hog sector, for example, experienced market collapse in 2008 as a result of external global forces and related domestic policy, including the removal of the single-desk selling agency, which raised the cost of production well above selling prices while depressing prices for hogs at the farm gate. As a result, the number of hog farms across Canada decreased 35 per cent between 2006 and 2011⁶⁹ and those that remain today are more dependent on government subsidies for survival due to export market volatility.⁷⁰ Furthermore, farmers are now competing with other farmers in countries that have more favourable farming conditions, including relaxed labour and environmental laws, allowing them to produce the same goods for less. This global competition has put downward pressure on farm gate prices, and farmers have little choice but to absorb financial losses that occur as a result of fluctuating markets, which can have devastating and long-lasting impacts on farmers and industry.⁴⁹

The negotiation of trade agreements has been noted as a significant source of stress for producers,⁷¹ particularly for farmers in supply managed sectors.²³ Canada has five commodities under the supply management system, including dairy, table and broiler hatching eggs, chicken and turkey. Tariff Rate Quotas (TRQ) limit the amount of supply managed commodities that can come into Canada at low or zero tariff rates from other countries. Effectively, this avoids flooding the Canadian market with cheaper agricultural products from elsewhere.⁷² In the last round of negotiations of the United States-Mexico-Canada Agreement (USCMA), however, TRQs for dairy were increased for the United States, allowing more exports into Canada, to the detriment of Canadian farmers. Canada was also asked to not set the price for skim milk solids lower than the price in the U.S.73 removing the ability for Canada to compete with U.S. sellers in export markets. Witnesses at the House of Commons Standing Committee on Agriculture and Agri-Food discussed how farmers felt "abandoned" by the latest USCMA trade agreement because "a good supply management system gives them a certain quality of life and helps them to be able to predict their income and expenditures."²³ Indeed, Canada's dairy sector remains one of the few that continue to provide viable incomes and attract new and young farmers.49

Farmers are also susceptible to the effects of financial speculation in agricultural products. Commodity trading exchanges had previously existed as a way for farmers, buyers and food processers to hedge prices to protect their businesses against the uncertainties of weather and competition.74 Deregulation of commodity markets has allowed huge sums of money to be invested in commodities futures, contributing to large price swings.75 This has contributed to precarity among farmers who now deal with increased price volatility.

Climate change

CLIMATE CHANGE IS resulting in extreme and unpredictable weather patterns across the globe and is increasing the frequency and severity of natural disasters and weather events, including floods, hurricanes, and wildfires.^{76, 77} In 2022 alone, extreme weather cost \$3.1 billion in insurable losses across Canada.78

The climate crisis is an urgent matter for the agriculture sector and communities as farmers and others living in rural or remote areas depend on their land for their livelihood as well as for the sustainability of their communities.⁷⁹ Climate warming is not evenly distributed across the world and prairie regions in Canada are expected to warm twice as fast as the global average, potentially reaching a 6.4 degrees Celsius rise by the end of the 21st century. This would be devastating for farmers and their livelihoods and communities, and it would significantly reduce Canada's food production capacity.36 Already, climate change has reduced the productivity and capacity of farmers.80,81 Recent data shows a 21 per cent reduction in agricultural output worldwide since 1961, the equivalent of losing seven years of agriculture productivity growth (estimated productivity loss in North America was less, at 12.5%). 82 Climate breakdown has direct negative impacts on farmer mental health. 83, 84 Severe climate events can irrevocably reduce farmers' economic potential, resulting in increased anxiety, stress and depression⁸⁵ and even suicide in some instances.⁸⁶ The unpredictability of weather, including extreme weather, is noted as one of the top stressors faced by Canadian producers.87

One farmer highlighted the difficulties of dealing with the climate crisis, describing it as "exhausting and traumatizing." Furthermore, "farmers are on the front lines of the climate change and it's exhausting and traumatizing at times—in the B.C. context, we've experienced several years of intense pressure from wildfires, heat domes, and flooding, all of which have taken an incredible toll on our farms and farmers." (IR 01) Another farmer wrote, "...my co-workers would often come into work with dread and anxiety about climate collapse. We are in this work because we care about the land, and watching the decisions of corporate power destroy our world is scary." (SR 04) Farmers also noted that the ecological uncertainty of the biodiversity crisis, declining pollinator populations, as well as the inability of ecological systems to adjust to climate change as quickly as it is occurring are significant related concerns and areas of stress.

Diversity, inclusion and reconciliation

DISCUSSIONS WITH FARMERS and input from surveys revealed additional factors contributing to poor mental health relating to racism and colonialism and a desire for diversity, inclusion and reconciliation within the farming community.

A farmer from the NFU Youth Caucus noted that "being the only Black farmer in an area..., in addition to acts of racism towards them by other farmers and towards their families," was a noted source of stress and a factor that impacted their mental health (SR 02). Academic literature on the topic unequivocally shows the detrimental impact of racism on both mental and physical health outcomes, including worsened anxiety, depression and stress as well as overall poorer general health.88

Another respondent discussed the stress they felt as a result of a racist event they experienced. In this instance, posters with hateful messages were put up all over the town nearest their farm as well as at the end of their driveway, which they felt was a direct attack on the migrant workers employed on their farm. An increase in hate crimes and anti-immigrant sentiment has been observed in the Canadian setting⁸⁹ and is a pressing area for research and action.

Farmers also noted the role of ongoing colonialism and the "destruction of Indigenous ways of knowing/being." (SR 02) Survey respondents noted grappling with the reality of farming on Indigenous land and not knowing "how to be part of the reconciliation, justice, and healing of historical and present colonial harms," the questions of which "weigh on folks." (SR 02).

Finally, the importance of an affirming environment that values diversity and intersectionality was discussed as being an important component for mental health. As one respondent noted, "Having spaces where folks can be themselves, be called by their preferred names and pronouns, be safe with their gender and sexuality helps them feel safer and at ease compared to feeling on edge, hidden, and fearful in other spaces where there is not acceptance of diverse gender and sexual expressions." (SR 02) On a separate but related note, many participants in the NFU Women's Caucus spoke about domestic violence impacting on their mental health (see Appendix). Intimate partner violence is a longstanding problem in Canada and is recognized as a global public health concern by the World Health Organization.90 Although rates of domestic violence in rural areas are similar to urban areas, there are fewer resources for women in rural areas to draw upon—including health, economic and social resources.91

Conclusion and recommendations

ALTHOUGH THE ROLE of personal and individual factors cannot be ignored, there is reason to believe that the farmer mental health crisis is exacerbated, if not precipitated by, larger structural factors, including income precarity, climate change, financialization of farmland and other factors. While these factors are often acknowledged, they are generally treated as inevitable facts of farming when they are, in truth, the results of policy inaction and increasing corporate power within the agriculture sector. As such, recommendations to alleviate these uncertainties are absent from the larger discussions on farmer mental health. The Canadian House of Commons report, for example, dedicates an entire section to the role that financial and economic uncertainty play in shaping farmers' mental health, including changes in commodity and input prices, trade agreements, levels of debt and access to finance, but no solutions or recommendations to help this situation are provided. Rather, approaches to improving the mental health crisis focus on downstream effects of the farm income crisis and not the root causes. In effect, this shifts the responsibility for addressing the crisis away from those who can effect systemic change, e.g., governments and policy-makers, to individuals and communities. The importance of mental health resources for farmers and the need to improve them cannot be understated. It is critical, however, that governments address structural factors to improve the living and working conditions of farmers.

This report provides six broad recommendations for improving farmer mental health based on the above research, as well as over 50 years of research, policy and advocacy from the NFU.

The recommendations are:

- 1. Implement policies that enhance economic stability for farmers and farm workers.
- 2. Continue and enhance supports to farmers transitioning to sustainable farming practices.
- 3. Include food sovereignty in the federal goals for agriculture.
- 4. Rebuild rural infrastructure.
- 5. Address ongoing discrimination and violence in the farming sector.
- 6. Expand access to mental health care for farmers and support existing organizations that are providing support, advocacy, and research.

Farmers are best positioned to understand their needs and, as such, policies aimed at improving the farm income, climate and mental health crisis should be made with input and leadership from the NFU. Furthermore, as the policy environment for farming changes based on industry and location, no one-size-fits-all approach is likely to work. This highlights the importance of consultation with family farmers, individual and cooperative farmers, and farm workers, who face different challenges than farms run by multinational corporations.

Recommendation 1: Implement policies that enhance economic stability for farmers and farm workers.

There are a number of policies that can be implemented to address drivers of economic precarity and uncertainty, including the cost-price squeeze, commodity volatility, corporate concentration and the climate crisis (see recommendation 2). Farmers are already active in lobbying for policies that will improve their economic well-being. This is perhaps unsurprising since historically farmers have been a politically active group that has worked tirelessly to improve their economic conditions through cooperatives and other means.⁹² In response to ongoing market difficulties, for example, Alberta Pork producers have voted to explore the possibility of reinstating the single-desk selling system for the sale of hogs and pigs in the province of Alberta. A single-desk selling agency would increase the collective marketing power of hog farmers and provide much needed market stabilization.⁹³ On

the input side, the NFU has launched the Save our Seed campaign, which calls for the inalienable right of farmers to save, reuse, exchange and sell seed and for these rights to be entrenched in legislation.94 The ability to save seed would significantly protect farmers against rising input costs and allow farmers more control over what they plant. Collective action toward pro-farmer policy solutions, such as those advocated for by farmers through the NFU and other farm organizations, provides purpose and focus and can engender a sense of hope. To foster a more equitable distribution of power within the food system, enacting stronger competition policies to allow for more competition in the food system is critical.95 Competition in food systems is necessary to avoid the 'race to the bottom' dynamics that encourage corporations to externalize their costs to remain viable⁴² at the expense of farmers and farm workers worldwide. On a global scale, this would require that all countries cooperate in enacting anti-competitive legislation to prevent companies from going to another region with weaker regulations.⁴² Finally, trade agreements that prevent governments from enacting mechanisms that can provide stability to farmers in a turbulent market, such as single-desk sellers or supply management, should be changed or removed entirely.

Recommendation 2: Continue and enhance supports to farmers transitioning to sustainable farming practices.

Given the intimate relationship between farmers and the land, the climate crisis poses an enormous threat to farmers' economic viability and mental health. However, our current dietary and agriculture patterns, including how food is processed and distributed worldwide, are responsible for approximately 21-37 per cent of greenhouse gas emissions worldwide, contributing to climate breakdown.^{96, 97} Transitioning from the current industrial agri-food system towards one that promotes ecological systems is necessary. One such way is through using agro-ecological approaches, which harness existing ecological interactions to promote crop productivity, soil fertility and biodiversity without the use of external inputs such as industrial fertilizers.^{98, 99} In this way, agro-ecology significantly reduces greenhouse gas emissions associated with industrial farming. 100 Furthermore, agro-ecology is distinguished from regenerative farming in that it encompasses social and political aspects of farming, including an emphasis on farmer agency and rights.¹⁰¹

A report by Ahmed (2022) on advancing agro-ecology policy in Canada, however, notes that policies to facilitate a shift to agro-ecology in Canada are underdeveloped. With the exception of a handful of provinces that promote ecological sustainable farming, there are few supports and no national research effort or baseline to determine the level of agro-ecological transition

in Canada. This is the case despite many farmers' interest in transitioning to agro-ecological farming. This report recommends the implementation of a National Agro-ecology Strategy alongside a comprehensive national food policy that integrates agro-ecology into all major sectors and policy areas. Other supports can include financial support for transitioning, pilot programs and increased access to land.

Some movement with regards to transitioning to agro-ecological farming practices is occurring in Canada. For example, the implementation of the On-Farm Climate Action Fund, through AAFC's Agricultural Climate Solutions, has been of benefit to many farmers as they work to reduce their carbon emissions through nitrogen fertilizer reduction, cover cropping, and rotational grazing. Another initiative is AAFC's Living Labs, which provides five years of funding to help farmers, scientists and other collaborators codevelop and test technologies and farming practices that foster sustainable agriculture. 102 Continued research through Living Labs will also provide additional science to ensure that climate solutions are permanent and enable farmers on the front lines of climate change impacts to make informed decisions. These programs need to be continued to support those who are not the early adopters.

Recommendation 3: Include food sovereignty in the federal goals for agriculture.

Current federal agricultural policy continues to prioritize export markets. Domestic production, on the other hand, has been less of a focus, as have been other aspects of farming, including farmer well-being and ecological sustainability. The Canadian government should be facilitating the growth of sustainable and local food systems to ensure the sustainability and adaptability of the domestic market. One such way is to support food sovereignty.

Food Sovereignty, a concept first defined La Via Campesina as "the right of Peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems"103 could address economic uncertainty, the farm labour shortage, and the dependency on increasingly erratic global food production. To achieve food sovereignty, however, farmers need affordable access to land and they need to receive prices for their produce that would allow for a livable income while feeding the country.99 The costs of focusing on agricultural exports at the expense of production intended for domestic consumption are significant and contribute to the hollowing out of rural communities. They also make farmers and consumers vulnerable to supply chain fluctuations. A transition to food sovereignty is a matter of

national sovereignty that simultaneously addresses many of the drivers of poor farmer mental health:

"Food sovereignty argues that feeding a nation's people is an issue of national security—of sovereignty, if you will. If the population of a country must depend for their next meal on the vagaries and price swings of the global economy, on the goodwill of a superpower not to use food as a weapon, on the unpredictability and high cost of long-distance shipping, then that country is not secure, neither in the sense of national security nor in the sense of food security."99

Shifts towards food sovereignty, however, will require tailoring approaches to meet the unique needs of specific ecosystems, industries, landscapes and groups of people.

Recommendation 4: Rebuild rural infrastructure.

The consolidation of farm land and other factors have contributed to the intensification of rural de-population, altering the physical and social landscapes of rural communities and significantly impacting mental health. Rural policy across Canada is characterized by sectoral silos, a lack of integration and, to some extent, continued treatment of rural areas as sites of extraction detached from investment. 104 Canadian governments, at all levels, need to put significant efforts into revitalizing and rebuilding rural infrastructure, including schools, hospitals, and transportation and communications systems. Investments and programs aimed at re-populating and sustaining infrastructures will help improve mental health and social cohesion and potentially mitigate growing social polarization, which is a growing phenomenon. In the European Union, for example, rural development funds have placed community development and economic diversification at the centre of rural development agendas, complementing traditional focuses on agriculture (e.g., through the LEADER program).¹⁰⁵ Rebuilding rural communities is not a small undertaking, but as rural communities decline, the issue will become only more urgent.

Recommendation 5: Address ongoing discrimination and violence in the farming sector.

Governments and policy-makers must take action against the violence towards Indigenous, Black, and racialized groups, as well as 2SLGBTQ+ individuals, women, and other equity-deserving groups. As hate groups increase in size and prominence¹⁰⁶ farmers within these marginalized groups, and the farmers and farm workers who care for them, experience increased stress and hostility. Every farmer deserves dignity, respect and the right to

feel safe and secure in their work. Considerable work needs to be done to make farming a more inclusive and equitable industry.

Recommendation 6: Expand access to mental health care for farmers and support existing organizations that are providing support, advocacy, and research.

Great strides have been made in Canada with regards to providing and improving farmer mental health supports. The province of Ontario, for example, recently implemented a stress line and free counselling sessions through the Ontario Farmer Wellness Initiative. In Prince Edward Island, farmers, families and farm hands can access up to six counselling sessions for free. Although these are positive developments, only two other provinces—Manitoba and Saskatchewan—have a dedicated help stress phone line for farmers, leaving the majority of Canadian farmers without access to emergency help appropriate to their needs. To fill this gap in care, a number of farm agriculture groups and grassroots organizations are providing nominal support, including subsidized or free access to mental health services, education and other resources. For example, the Manitoba Farmer Wellness program, started by a group of therapists who are also farmers, offers up to six counselling sessions for free to farmers in Manitoba. Farm Safety Nova Scotia provides farmers and their families with up to three hours of free mental health services. These organizations, however, should not be alone in tackling this crisis. Governments should increase the mental health resources available to farmers through a national telephone helpline and provide free psychological and other counselor services. These resources should be farmer-focused and farmer-informed. They should also be inclusive to all farmers and farm workers in Canada, including Black and Indigenous farmers as well members of the 2SLGBTQ+ community. These programs should also be regularly assessed for their impact and efficacy to ensure they are adequate in meeting the needs of farmers and farm workers. In addition, farm organizations that are on the front lines with regards to advocating and providing support need continued and renewed investments.

Although these efforts represent 'downstream' approaches to mental health, this work is integral to health and should be continued and expanded for the immediate safety and well-being of farmers. Mental health supports are essential for helping farmers with lived experience of stress, anxiety and depression to regain a sense of agency—a prerequisite for political engagement and participation in collective action.

Appendix

What we heard from farmers

INPUT FROM THE National Farmers Union, particularly members from the BIPOC as well as Women's & Youth caucuses, were important in helping to understand key factors impacting their mental health. Although this report largely focuses on the economic drivers impacting farmers' mental health, there are additional factors that were discussed by farmers that warrant inclusion.

One farmer, a member of the BIPOC caucus, discussed at length some of the barriers they have faced with being able to farm in Canada. Having previously farmed in another country before immigrating to Canada, they have found it difficult to farm here for a variety of reasons, including economic and knowledge barriers. Economic barriers included the ability to purchase land and inputs, while knowledge barriers included difficulty obtaining information and know-how for farming practices in the Canadian setting. This was exacerbated by high tuition costs for going to university to acquire this information. Ultimately, they felt that gatekeepers were controlling this information. They said:

"Learning the systems of land in this country and all the complexities...and I think sometimes you kind of feel like there is a section of people [who are] invisible who are trying to hide from you this kind of information." (IR 03)

Discussion with members of the women's caucus revealed many additional factors influencing farmers' mental health. One factor included their experiences of intensified political polarization within rural communities, alongside a rise in the spread of conspiracy theories, disinformation, as well as a perceived increase in racist and white supremacist hate incidents (discussed above).

The role of gender was also discussed as being an important factor impacting mental health. Members of the women's caucus discussed feeling that they were often not taken seriously as farmers or were not entrusted by other members of the household and the broader community to make decisions about their farm. One farmer discussed how women in the family are often not trained in the ways of farming in the same ways that male members are; women are typically expected to take on other roles within the household, including meal preparation and other household tasks. Another issue that was raised was of violence against women, both verbal and physical. Although this problem is not limited to farming—it is part of a larger patriarchal problem of gender-based violence—it has unique impacts on farming communities as well as the lives of women on farms. The continued growing trend of women owning and operating their own farms was noted in this context.

Another issue that arose from these discussions with farmers was the lack of ancillary health care services, including physiotherapy or massage. As one farmer wrote:

"Something else that has impacted my mental health in the last few years is the impact that farm work has had on my physical health and knowing that I may not physically be able to do this work long term, especially because as a farm worker, I've never had a job that offered health care benefits to pay for things like physiotherapy and so on that might help me do this work in a more sustainable way." (SR 08)

Some additional factors that participants said impacted mental health included:

- Interpersonal issues with family or others on the farm. There is no separation between work, home and family life.
- Isolation, both physically (living in rural communities) and socially. Being a farmer often means working alone and making business decisions alone.

- Cheap food culture in Canada. The average consumer is not able or not willing to spend more on food to appropriately compensate farmers growing nutrient-dense foods.
- Difficulties shifting to agro-ecological practices; farmers want to do the right thing for soil health and plant health.
- The role of stigma often prevents farmers from seeking help from farmers.
- Difficulties in balancing farm and administrative work; multiple demands of running a direct-market farm (social media, bookkeeper, farmer, and other tasks).
- Canada's complex legislative framework makes accessing resources and advocating for one's needs challenging.
- A high degree of factors outside of farmers' control (weather, markets, grain transport, input costs).
- Public perception and pressure placed on farmers re: input use, GMOs, and other issues, when the pressure should be placed on corporations controlling the agri-food system.
- Overworking, to the point of burnout, to make ends meet.
- Poor generation modelling of wellness.
- Farmers feel that they are undervalued by society, both financially and socially.

Policies that participants said would help improve mental health included:

- Full public access to physiotherapy, dental care and eye care.
- Increased public transit in rural areas.
- Creation and implementation of food security strategies from all levels of Canadian government.
- Increase in homecare for elderly in rural areas so they can continue to live on the farm.
- Require municipal planners to be trained in food security/food sovereignty, and to include these elements into their community planning.

- Increase social/affordable housing for women experiencing domestic violence in rural areas. This would allow them to continue farming but have a safe place to live.
- Continue to build mental health supports for rural people.
- Income supports to pay farm workers a living wage.

Notes

- 1 Tait, C., & Leeder, J., 2019, "With high stress, anxiety and depression, 40 per cent of Canadian farmers uneasy about seeking help," The Globe and Mail, https://www.theglobeandmail.com/ $\underline{canada/alberta/article-with-high-stress-anxiety-and-depression-40-per-cent-of-canadian/?utm_me$ dium=Referrer:+Social+Network...%206/75/21/2019.
- 2 Health Council of Canada, 2010, Stepping It Up: Moving the focus from health care in Canada to a healthier Canada, Health Council of Canada.
- 3 Tremblay, D., 2016, "Precarious work and the labour market. Social Determinants of Health: Canadian perspectives, pp. 32-56.
- 4 World Health Organization, 2018, Social Determinants of Health, retrieved June 12, 2023 from http://www.who.int/social_determinants/en/.
- 5 Mantoura, P., & Morrison, V., 2016, Policy approaches to reducing health inequalities. National Collaborating Centre for Healthy Public Policy.
- 6 Braveman, P., Egerter, S., & Williams, D., 2011, "The social determinants of health: coming of age," Annual review of public health, 32(1), 381-398; p. 383
- 7 Graham, H., 2007, Unequal Lives: Health and Socioeconomic Inequalities, McGraw-Hill Education (UK).
- 8 Jones-Bitton, A., Best, C., Mactavish, J., Fleming, S., & Hoy, S., 2019a, "Stress, anxiety, depression, and resilience in Canadian farmers," Social psychiatry and psychiatric epidemiology, 1-8.
- 9 Farm Management Canada, 2020, Healthy Minds, Healthy Farms: Exploring the connection between mental health and farm business management.
- 10 Thompson, R., Hagen, B., Lumley, M., Winder, C., Gohar, B., & Jones-Bitton, A., 2022, "Mental health and substance use of farmers in Canada during COVID-19," International Journal of Environmental Research and Public Health, 19(20), 13566.
- 11 Goldner, E., Bilsker, D., & Jenkins, E., 2016, A Concise Introduction to Mental Health in Canada, Canadian Scholars' Press.

- 12 Williams, R., 2001, "The ongoing farm crisis: Health, mental health and safety issues in Wisconsin," Rural Mental Health, 26(4), 15-17.
- 13 Yazd, S., Wheeler, S., & Zuo, A., 2019, "Key risk factors affecting farmers' mental health: A systematic review," International Journal of Environmental Research and Public Health, 16(23), 4849.
- 14 Low, J., Griffith, G., & Alston, C., 1996, "Australian farm work injuries: incidence, diversity and personal risk factors," Australian Journal of Rural Health, 4(3), 179-189, https://doi. org/10.1111/j.1440-1584.1996.tb00207.x.
- 15 Simpson, K., Sebastian, R., Arbuckle, T., Bancej, C., & Pickett, W., 2004, "Stress on the farm and its association with injury," Journal of Agricultural Safety and Health, 10(3), 141.
- 16 Andersen, K., Hawgood, J., Klieve, H., Kõlves, K., & De Leo, D., 2010, "Suicide in selected occupations in Queensland: Evidence from the State suicide register," Australian & New Zealand Journal of Psychiatry, 44(3), 243-249.
- 17 Jones-Bitton, A., Hagen, B., Fleming, S., & Hoy, S., 2019b, "Farmer burnout in Canada," International Journal of Environmental Research and Public Health, 16(24), 5074.
- 18 Kennedy, A., Maple, M. J., McKay, K., & Brumby, S. A., 2014, "Suicide and accidental death in Australia's rural farming communities: a review of the literature," Rural and Remote Health, Article 2517.
- 19 Perceval, M., Ross, V., Kõlves, K., Reddy, P., & De Leo, D., 2018, "Social factors and Australian farmer suicide: A qualitative study, BMC Public Health, 18(1), 1-7.
- 20 Ringgenberg, W., Peek-Asa, C., Donham, K., & Ramirez, M., 2018, "Trends and characteristics of occupational suicide and homicide in farmers and agriculture workers, 1992-2010," The Journal of Rural Health, 34(3), 246-253.
- 21 Cecco, L., 2019, "Canada's farmers pushed to the brink by politics, weather and banks," The Guardian, https://www.theguardian.com/world/2019/nov/18/high-debts-and-low-yields-pushcanadas-farmers-to-the-brink.
- 22 Purdon, N., & Palleja, L., 2020, "'I thought I was going to die': Canadian farmers open up about struggles with mental health." CBC, https://www.cbc.ca/news/health/the-national-farmersmental-health-1.5431158.
- 23 Finnigan, P., 2019, "Mental health: A priority for our farmers," Report of the Standing Committee on Agriculture and Agri-Food, 42nd Parliament, 3rd session, p.10, 15-16, 18.
- 24 Booth, N., & Lloyd, K., 2000, "Stress in farmers," International Journal of Social Psychiatry, 46(1), 67-73.
- 25 Fraser, C., Smith, K., Judd, F., Humphreys, J., Fragar, L., & Henderson, A., 2005, "Farming and mental health problems and mental illness," International Journal of Social Psychiatry, 51(4), 340-349.
- **26** Alt, S., 2019, "Farmer suicides and the function of death in neoliberal biopolitics," *Journal of* International Political Sociology, 13(1), 37-52.
- 27 Das, A., 2017, "Farmers' suicide and agrarian crisis: Social policy and public mental health," Indian journal of psychiatry, 59(3).
- 28 Gregoire, A., 2002, "The mental health of farmers," Occupational Medicine, 52(8), 471-476.
- 29 Merriott, D., 2016, "Factors associated with the farmer suicide crisis in India," Journal of epidemiology and global health, 6(4), 217-227.

- 30 Stanley-Clarke, N., 2019, "The role of agricultural professionals in identifying, mitigating and supporting farming families during times of stress: Findings of a qualitative study," Australian Journal of Rural Health, 27(3), 203-209.
- 31 Santos, E., Queiroz, P., Nunes, A., Vedana, K., & Barbosa, I., 2021, "Factors associated with suicidal behavior in farmers: A systematic review," International Journal of Environmental Research andPpublic Health, 18(12), 6522.
- 32 Sutherland, L., & Glendinning, T., 2008, "Farm family coping with stress: the impact of the 1998 ice storm," Journal of Comparative Family Studies, 39(4), 527-543.
- 33 Kubik, W., & Moore, R., 2001, Women's Diverse Roles in the Farm Economy and the Consequences for Their Health, Well-being and Quality of Life, University of Regina, Canadian Plains Research Center.
- 34 Hagen, B., Sawatzky, A., Harper, S., O'Sullivan, T., & Jones-Bitton, A., 2021, "What impacts perceived stress among Canadian farmers? A mixed-methods analysis," International journal of environmental research and public health, 18(14), 7366.
- 35 Wiebe, N., 2017, "Crisis in the food system: The farm crisis," In M. Koç, J. Sumner, & A. Winson (Eds.), Critical Perspectives in Food Studies, Oxford University Press.
- 36 Qualman, D., 2019, Tackling the Farm Crisis and the Climate Crisis, p. 11
- 37 Statistics Canada, 2022. Canada's 2021 Census of Agriculture: A story about the transformation of the agriculture industry and adaptiveness of Canadian farmers, https://www150.statcan.gc.ca/ n1/en/daily-quotidien/220511/dq220511a-eng.pdf?st=oJi8qMFt
- 38 Qualman, D., 2011, "Advancing agriculture by destroying farms? The state of agriculture in Canada," In H. Wittman, A. Desmarais, & N. Wiebe (Eds.), Food Sovereignty in Canada: Creating Just and Sustainable Food Systems, pp. 20-42, Fernwood Publishing.
- 39 Qualman, D., 2001, The Farm Crisis and Corporate Power, 0886272688. Alternatives; 2001. Report No.: 0886272688.
- **40** Howard, P., 2016, Concentration and power in the food system: Who controls what we eat? Vol. 3, Bloomsbury Publishing.
- 41 Magdoff, F., & Tokar, B., 2009, "Agriculture and food in crisis," Monthly Review, 61(3), 1-16.
- 42 Clapp, J., 2021, "The problem with growing corporate concentration and power in the global food system," Nature Food, 2(6), 404-408.
- 43 MacRae, R., 2020, Corporate concentration, https://foodpolicyforcanada.info.yorku.ca/ backgrounder/problems/corporate-concentration/.
- 44 ETC Group, 2022, Food barons 2022. Crisis Profiteering, Digitalization and Shifting Power, https://www.etcgroup.org/sites/www.etcgroup.org/files/files/food-barons-2022-summariesfinal_16_sept_.pdf.
- 45 Brekveld, P., 2022, OFA outlines the impacts on farmers as price-takers, https://ofa.on.ca/ newsroom/ofa-outlines-the-impacts-on-farmers-as-price-takers/.
- 46 Holtslander, C., 2020, Meat Packing Concentration Makes Canada's Food System Vulnerable.
- 47 Edmiston, J., 2020, "Three meat-packing plants turn out 85% of Canada's beef. How did this happen?" Financial Post, https://financialpost.com/commodities/agriculture/why-only-threemeat-packing-plants-process-the-vast-majority-of-canadas-beef.
- 48 Hanf, J., 2008, "Food retailers as drivers of supply chain integration: A review," Australasian Agribusiness Review, 16.

- 49 Wiebe, N., 2022, "Crisis in the food system: The farm crisis," In M. Koç, J. Sumner, & A. Winson (Eds.), Critical Perspectives in Food Studies. Oxford University Press.
- 50 Thompson, D., 2021, Reframing the Farm Labour Crisis in Ontario, https://www.nfu.ca/wp-content/ uploads/2021/07/Reframing-the-Farm-Labour-Crisis-NFU-O-Farm-Labour-Study compressed.pdf.
- 51 Statistics Canada, 2017, A Portrait of a 21st Century Agricultural Operation, https://www150. statcan.gc.ca/n1/pub/95-640-x/2016001/article/14811-eng.htm.
- 52 Statistics Canada, 2022, Overview of Canada's Agriculture and Agri-food Sector, https://agriculture. canada.ca/en/canadas-agriculture-sectors/overview-canadas-agriculture-and-agri-food-sector.
- 53 Statistics Canada, 2022, Land use, Census of Agriculture Historical Data, https://doi. org/10.25318/3210015301-eng.
- 54 Statistics Canada, 2016, Table 32-10-0442-01 Characteristics of Farm Operators: Age and number of operators on the farm, Census of Agriculture, 2011 and 2016, inactive.
- 55 Fletcher, A., Akwen, N., Hurlbert, M., & Diaz, H., 2020, "You relied on God and your neighbour to get through it: Social capital and climate change adaptation in the rural Canadian Prairies," Regional Environmental Change, 20(2), 1-15.
- 56 Brew, B., Inder, K., Allen, J., Thomas, M., & Kelly, B., 2016, "The health and wellbeing of Australian farmers: a longitudinal cohort study," BMC Public Health, 16(1), 1-11.
- 57 Kanamori, M., Hanazato, M., Kondo, K., Stickley, A., & Kondo, N., 2021, "Neighborhood farm density, types of agriculture, and depressive symptoms among older farmers: a cross-sectional study," BMC Public Health, 21(1), 1-11.
- 58 Cecco, L., 2021, "Greyhound Canada to end intercity routes in blow to rural communities," The Gaurdian, https://www.theguardian.com/world/2021/may/13/greyhound-canada-end-routesrural-communities.
- 59 NFU, 2021, "Greyhound's exit paves the way for a national public transit system says NFU," https://www.nfu.ca/greyhounds-exit-paves-the-way-for-a-national-public-transit-system-says-nfu/.
- **60** Hertz, N., 2020, "Why loneliness fuels populism," Financial Times, https://www.ft.com/ $content/ff ad b 189 \underline{-5661} \underline{-40c3} \underline{-b142} \underline{-43f91cf38bdf}.$
- 61 Breau, S., Burkhart, N., Shin, M., Marchand, Y., & Sauer, J., 2020, "Is it time to start worrying more about growing regional inequalities in Canada?" The Canadian Geographer/Le Géographe canadien, 64(4), 542-550.
- **62** Magnan, A., 2015, "The financialization of agri-food in Canada and Australia: Corporate farmland and farm ownership in the grains and oilseed sector," Journal of Rural Studies, 41, 1-12.
- 63 Magnan, A., Davidson, M., & Desmarais, A., 2022, "They call it progress, but we don't see it as progress': farm consolidation and land concentration in Saskatchewan, Canada," Agriculture and Human Values, 1-14; p. 1
- 64 Holtslander, C., 2015, Losing Our Grip, 2015 Update, https://www.nfu.ca/wp-content/ uploads/2018/07/Losing-Our-Grip-2015-Update-Web-Version.pdf.
- 65 Aske, K., 2022, Finance in the Fields: Investors, Lenders, Farmers, and the Future of Farmland in Alberta, https://www.parklandinstitute.ca/finance_in_the_fields.
- **66** Government of Canada, 2022b, Overview of Canada's Agriculture and Agri-food Sector, Retrieved November 7, 2023 from https://agriculture.canada.ca/en/canadas-agriculture-sectors/overviewcanadas-agriculture-and-agri-food-sector.
- 67 McMichael, P., 2009, "The world food crisis in historical perspective.," Monthly Review, 61(3), 32.

- **68** NFU, 2013, Growing Forward 2—Accelerating Globalization, Stalling Food Sovereignty Implications of the GF2 Strategic Initiatives Suite, https://www.nfu.ca/wp-content/uploads/2019/10/ Growing-Forward-2-%E2%80%93-Accelerating-Globalization-Stalling-Food-Sovereignty.pdf.
- **69** Brisson, Y., 2015, *The Changing Face of the Canadian Hog Industry*., retrieved March 15, 2023, from https://www150.statcan.gc.ca/n1/pub/96-325-x/2014001/article/14027-eng.htm#n3.
- 70 Holtslander, C., 2012, "Frying our bacon: Globalization, competitiveness and Canadian hog policy," Union Farmer Monthly.
- 71 Herman, D., 2019, "Let's talk... about farmers: Trump's trade war and a looming mental health crisis," University of Toronto Medical Journal, 96(2).
- 72 NFU, 2019, Supply Management, retrieved March 15 2023 from https://www.nfu.ca/campaigns/ supply-management/.
- 73 Office of the United States Trade Representative, 2018), "United States-Mexico-Canada trade fact sheet," Agriculture: Market Access and Dairy Outcomes of the USMC Agreement, https://ustr. gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement/fact-sheets/ market-access-and-dairy-outcomes.
- 74 Magdoff, F., 2012, "Food as a commodity," Monthly Review, 63(8), 15-22.
- 75 Clapp, J., 2012, "Who governs global food prices?" Critical Perspectives in Food Studies, Oxford University Press.
- 76 Seneviratne, S., Nicholls, N., Easterling, D., Goodess, C., Kanae, S., Kossin, J., Luo, Y., Marengo, J., McInnes, K., & Rahimi, M., 2012, Changes in Climate Extremes and Their Impacts on the Natural Physical Environment.
- 77 Shukla, P. R., Skea, J., Calvo Buendia, E., Masson-Delmotte, V., Pörtner, H. O., Roberts, D., Zhai, P., Slade, R., Connors, S., & Van Diemen, R., 2019, Climate Change and Land: An IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems, IPCC.
- 78 Feltmate, B., & Shukle, P., 2023, "Extreme weather cost us \$3.1-billion in 2022—this is Canada's climate wake-up call," The Globe and Mail. https://www.theglobeandmail.com/business/ commentary/article-extreme-weather-cost-canada-31-billion/#:~:text=Opinion%3A%20Extreme%20 weather %20 cost %20 us, call %20 %2D %20 The %20 Globe %20 and %20 Mail.
- 79 Shorthouse, M., & Stone, L., 2018, "Inequity amplified: Climate change, the Australian farmer, and mental health," The Medical Journal of Australia, 209(4), 156-157.
- 80 Ahmed, S., & Stepp, J., 2016, "Beyond yields: Climate change effects on specialty crop quality and agroecological management," "Climate effects on specialty crop quality," Elementa: Science of the Anthropocene, 4.
- 81 Howard, M., Ahmed, S., Lachapelle, P., & Schure, M. B., 2020, "Farmer and rancher perceptions of climate change and their relationships with mental health," Journal of Rural Mental Health, 44(2), 87.
- 82 Ortiz-Bobea, A., Ault, T., Carrillo, C., Chambers, R., & Lobell, D., 2021, "Anthropogenic climate change has slowed global agricultural productivity growth," Nature Climate Change, 11(4), 306-312.
- 83 Gunn, K., Kettler, L., Skaczkowski, G., & Turnbull, D., 2012, "Farmers' stress and coping in a time of drought," Rural and Remote Health, 12(4), 1-16.
- 84 Smoyer-Tomic, K., Klaver, J., Soskolne, C., & Spady, D., 2004, "Health consequences of drought on the Canadian prairies," EcoHealth, 1, SU144-SU154.

- 85 Padhy, S., Sarkar, S., Panigrahi, M., & Surender, P., 2015, "Mental health effects of climate change," Indian Journal of Occupational and Environmental Medicine, 19(1), 3.
- 86 Guiney, R., 2012, "Farming suicides during the Victorian drought: 2001-2007," Australian Journal of Rural Health, 20(1), 11-15.
- 87 Farm Credit Canada, 2020, Healthy Minds, Healthy Farms: Exploring the Connection between Mental Health and Farm Business Management https://fmc-gac.com/wp-content/uploads/2020/07/ finalreport.pdf.
- 88 Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., Gupta, A., Kelaher, M., & Gee, G., 2015, "Racism as a determinant of health: a systematic review and meta-analysis," PloS one, 10(9), e0138511.
- 89 Crosby, A., 2021, "Policing right-wing extremism in Canada: Threat frames, ideological motivation, and societal implications," Surveillance & Society, 19(3), 359-363.
- 90 Government of Canada, 2022a, Fact Sheet: Intimate Partner Violence, https://women-genderequality.canada.ca/en/gender-based-violence/intimate-partner-violence.html.
- 91 Burczycka, M., 2022, "Women's experiences of victimization in Canada's remote communities," Juristat: Canadian Centre for Justice Statistics, 1-45.
- 92 Winson, A., 1993, The Intimate Commodity: Food and the development of the agro-industrial complex in Canada, Garamond Press.
- 93 Alberta Pork, 2020, Price negotiating power balance hurts producers, https://www.albertapork. com/2020/09/21/price-negotiating-power-balance-hurts-producers/.
- **94** NFU, 2019, Save our seed campaign, https://www.nfu.ca/campaigns/save-our-seed/.
- 95 NFU, 2023, The Competition Act as a Tool for Democracy: Fairness for Farmers, https://www. nfu.ca/policy/the-competition-act-as-a-tool-for-democracy-fairness-for-farmers/.
- 96 Clapp, J., Moseley, W., Burlingame, B., & Termine, P. (2021). The case for a six-dimensional food security framework. Food Policy, 102164.
- 97 FAO, IFAD, UNICEF, WFP, & WHO, 2020, The State of Food Security and Nutrition in the World 2020:Transforming food systems for affordable healthy diets, https://doi.org/10.4060/ca9692en.
- 98 Altieri, M., 2010, "Scaling up agroecological approaches for food sovereignty in Latin America," in H. Wittman (Ed.), Food sovereignty: Reconnecting food, nature & community, pp. 120-133, Pambazuka.
- 99 Rosset, P., 2011, "Food sovereignty and alternative paradigms to confront land grabbing and the food and climate crises," Development, 54(1), 21-30. (p. 22).
- 100 Poux, X., & Aubert, P., 2018, An Agroecological Europe in 2050: Multifunctional Agriculture for Healthy Eating.
- 101 Ahmed, F., 2022, Growing Common Ground: Pathways to Advance Agroecology Policy in Canada.
- 102 Government of Canada, 2023, Living Laboratories Initiative, Retrieved from https://agriculture. canada.ca/en/science/living-laboratories-initiative.
- 103 La Via Campesina, 2021, "Food Sovereignty: A manifesto for the future of our planet," Indigenous Policy Journal, 32(2). (p. 2).
- **104** Bollman, R., 2022, "Density matters and distance matters: Public policy from a rural perspective," in K. a. J. Foster, J. (Ed.), The Right to Be Rural, pp. 211-236, University of Alberta Press.

 $\textbf{105} \ \ \textbf{OECD, 2020, "Rural well-being: Geography of opportunities,"} \ \textit{OECD Rural Studies, OECD}$ Publishing, Paris, France.

106 Wang, J., & Moreau, G., 2022, Police-reported Hate Crime in Canada, 2020, retrieved f $\textbf{rom}\ \underline{\text{https://www150.statcan.gc.ca/n1/pub/85-002-x/2022001/article/oo005-eng.htm}}$



