

# Mental Health in the Dairy and Livestock Production Sector

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## ■ Take Home Messages

- ▶ National survey results indicate issues with mental health and wellbeing amongst Canadian farmers.
- ▶ Attitudes towards help-seeking for mental health were generally good amongst participants of a 2015–2016 national mental health survey, although perceived stigmas remain.
- ▶ Given that poor mental health can negatively impact physical health, productivity, and animal welfare, these findings have implications for Canadian agriculture.
- ▶ The conversation around farmer mental health in Canada is increasing.
- ▶ On-going research initiatives will help further address knowledge gaps in Canadian farmer mental health, and contribute to development of mental health resources and training for the agricultural industry.

## ■ Background

Farmers worldwide experience significant occupational stressors, most of which are beyond their control. Some examples include: weather, extreme weather, and climate change; animal disease; significant financial burdens; increasing regulations; and succession planning (Walker and Walker, 1988; Booth and Lloyd, 1999; Fraser et al., 2005; Kallioniemi et al., 2016). Numerous studies worldwide have reported elevated levels of psychological distress, depression, anxiety, suicidal ideation, and death by suicide in farmers compared to the general population and to other occupational groups (Sanne et al., 2004; Hounsoume et al., 2012; Kallioniemi et al., 2016; McIntosh et al., 2016; Torske et al., 2016). Extreme events, like animal disease outbreaks, can exacerbate the issue of farmer mental health. For example, the Foot and Mouth Disease (FMD) outbreak in the United Kingdom (UK) and Netherlands in 2001 resulted in serious psychological impacts, including post-

traumatic stress. Affected producers were reported to experience flashbacks, nightmares, helplessness, guilt, anger and grief (Hall et al., 2004; Olf et al., 2005).

Regrettably, farmers may be reluctant to seek help when experiencing issues related to their mental health. For example, even during a large-scale outbreak like the FMD outbreak in the UK, only 1.5% of producers sought professional help (Peck, 2005). Farmers there first turned to their family and friends, many of whom were also experiencing distress, and then to their veterinarians and agricultural service representatives, who, despite wanting to help, reported they felt unqualified and ill-prepared to help the struggling farmers (Peck, 2005).

Despite the well-known stressors that farmers experience, and the importance of Canadian agriculture to Canada and its economy, there was a relative lack of research on the mental health of Canadian farmers until recently. To address this gap in knowledge, a national survey was conducted in 2015-2016 to obtain baseline statistics on several mental health outcomes, as well as to investigate attitudes towards help-seeking and current supports amongst Canadian farmers. This paper will review some of the findings from this survey, with an emphasis on the dairy cattle sector, and discuss initiatives being undertaken to support farmer mental health in Canada.

## ■ **Methods**

A cross-sectional survey using an online questionnaire was conducted with Canadian farmers between September 2015 and February 2016. The survey was promoted to farmers via national and provincial industry and commodity newsletters, magazines, listservs, and social media (e.g., Twitter).

Several validated, psychometric scales were used to measure mental health outcomes of interest: Perceived Stress Scale (stress); Hospital Anxiety and Depression Scale (anxiety and depression); Maslach Burnout Inventory–General Services Scale (professional efficacy, emotional exhaustion, cynicism); and the Connor-Davidson Resilience Scale (resilience). Questions were also asked to collect demographic data and explore help-seeking attitudes and satisfaction with current supports for mental health.

## ■ **National Survey Results and Discussion**

Responses were obtained from 1,132 farmers across all commodity groups, across Canada; of these, 410 (36%) self-identified as dairy cattle farmers.

## **Perceived Stress**

Perceived stress was measured using the Perceived Stress Scale (Cohen et al., 1983). Overall, 45% of participating farmers were classified in the high stress category. Amongst dairy cattle farmers specifically, 41% were classified in the high stress category. These results are concerning because chronic stress is associated with numerous poor health practices and outcomes, including decreased life satisfaction, depression, anxiety, poor attention, and higher death rates (reviewed by Shapiro et al., 2005).

## **Anxiety and Depression**

Anxiety and depression were measured using the Hospital Anxiety and Depression Scale (Zigmond and Snaith, 1994). Over half and roughly one-third of participating farmers met the scale's definition for anxiety and depression classification, respectively. Both the anxiety and depression scores, and the prevalence of anxiety and depression, were higher than the general population norms for the scales and the results from previous UK and Norway farmers that used the same scale (Booth and Lloyd, 1999; Crawford et al., 2001; Sanne et al., 2004); this said, time differences between the study periods may hinder these direct comparisons. Results amongst dairy farmers were the same as the study population overall; roughly one-half and one-third of dairy cattle participants met the scale's definition for anxiety and depression classification. In addition to the personal impacts on individuals experiencing anxiety and depression, poor mental health also negatively impacts work performance and productivity (Johns, 2010). Hence, these results may reflect threats to agricultural production.

## **Burnout**

The Maslach-Burnout Inventory–General Services Scale was used to measure burnout. Burnout has three components: professional efficacy, emotional exhaustion, and cynicism (Maslach et al., 2016). Overall, participating farmers scored high in emotional exhaustion and cynicism; similar scores were observed in dairy cattle farmers. Burnout can have negative effects on wellbeing, productivity, job retention, and production (Huebner, 1993; Maslach et al., 2015). Despite high scores on emotional exhaustion and cynicism, professional efficacy amongst farmers was high, indicating beliefs of continued effectiveness in their work.

## **Resilience**

Resilience is defined as a “state of being that promotes wellness and decreases the impact of physical and psychological stress” (Adams et al., 2010); hence, it can be described as helping one “bounce back” from

challenge or adversity. Resilience was measured using the Connor-Davidson Resilience Scale (Connor and Davidson, 2003). Overall, roughly two-thirds of participating farmers overall, and two-thirds of participating dairy cattle farmers specifically, had resilience scores that were below the United States' general population average (the comparison group used for this scale) (Connor and Davidson, 2003). This is cause for concern as resilience can help protect people from depression, anxiety, burnout, stress, and suicide (e.g., Howe et al., 2012). Fortunately, resilience is also a skill that can be taught, practiced, and learned (Leppin et al., 2014).

## **Help-Seeking**

Generally speaking, participating producers had good attitudes towards seeking help for mental health. For example, over two-thirds of all participants agreed that seeing a mental health professional can be helpful, that they would seek such help if they were worried or upset for a long period of time, and that seeking help did not make them a weak person. However, 40% of farmers indicated that they would feel uneasy seeking professional help because of “what other people might think”, and one-third said that this help-seeking can “stigmatize a person’s life”. These help-seeking statistics were very similar in dairy cattle farmers. While anecdotal evidence suggests that attitudes towards mental health have generally been improving (i.e. stigma has been decreasing), these results suggest that Canadian agriculture would benefit from continued discussion and “normalizing” of mental health struggles and illness.

## **Satisfaction with Mental Health Supports**

Levels of participant satisfaction with various sources of support for mental health were explored. Overall, participants were satisfied with the support provided from their spouses/partners, family, and friends, with over two-thirds indicating they were satisfied or very satisfied with each of these sources. Lower levels of satisfaction were observed for perceived industry support for mental health, with only 12–60% of participants indicating being satisfied or very satisfied, depending on commodity sector. Approximately 45% of dairy cattle producers indicated being satisfied or very satisfied with the mental health support provided by their industry. Overall, these results suggest there is considerable room for improvement in farmer mental health supports in Canadian agriculture.

## **Potential Implications of National Survey Statistics**

The national survey results may represent a threat to Canadian agriculture. For example, the effects of chronic stress include physical and mental illness, and poor mental health is associated with absenteeism and presenteeism,

and negatively impacts productivity (Johns, 2010). Burnout is not well-studied amongst farmers but is recognized to be associated with high turnover and low retention in other occupations (Maslach et al., 2016). Hence, burnout could have implications for farmer retention as well. Additionally, the poor mental health outcomes observed could potentially have animal welfare implications, because farmer wellbeing and animal wellbeing are linked, and cases of animal neglect have been reported to be associated with psychological, addiction, and social problems (Andrade and Anneberg, 2014; Devitt, 2015).

## ■ Ongoing Research Activities

The Jones-Bitton lab at the University Guelph is continuing to conduct research in the area of farmer mental health. Below, several ongoing initiatives are discussed.

### Scoping Review and Environmental Scan

Led by Briana Hagen (PhD Candidate, Jones-Bitton lab, University of Guelph), a worldwide scoping review of the academic and grey<sup>1</sup> literature on farmer mental health has been conducted. This review will help identify gaps in knowledge and inform important future research directions.

In addition to this scoping review, an environmental scan of the academic and grey literature was conducted to summarize the farmer-specific mental health resources and programs that are currently, or were previously, offered worldwide. Where possible, factors contributing to the successes and failures of the program were noted. This scan will help inform development of future resources.

### Lived Experience of Mental Health

A series of 75 one-on-one research interviews were conducted with farmers, veterinarians, and people working in agricultural government and industry between July 2017 and May 2018. The intent of these interviews was to explore the lived experience of mental health in agriculture, including impacts on the farmers, their families, their livestock and their finances. Additionally,

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<sup>1</sup> “Grey literature is information produced outside of traditional publishing and distribution channels, and can include reports, working papers, newsletters, government documents, speeches, white papers, urban plans, and so on.” (Source: <https://www.lib.sfu.ca/help/research-assistance/format-type/grey-literature>)

discussion pertained to attitudes and experiences with seeking help for mental health, and perceived ideals for farmer mental health supports and programming in Canada. These qualitative data are currently being analyzed. The results will help gain more in-depth insight as to the experience and impact of poor mental health in Canadian farming, as well as help inform development of resources and programming to support farmer mental health in Canada.

## **Mental Health Literacy Training Program for Agriculture**

To help address the issue of low mental health literacy in Canadian agriculture, the Jones-Bitton lab, working with a team of stakeholders in agriculture, government, veterinary practice, mental health and social work, created a mental health literacy program specific for Canadian agriculture. This training is intended to teach participants about common mental health conditions (e.g., stress, depression, anxiety, suicide), how to recognize the signs that someone might be struggling with their mental health, how to initiate a conversation with that someone, and how to bridge them to appropriate mental health support.

At the time of writing, a four-hour face-to-face version of the training program has been piloted (six groups, with 15-20 participants in each), and data collected pre- and immediately post-training in order to evaluate knowledge, attitudes, and behaviours with respect to a number of outcomes. Additional post-training data will be collected at three months and six months post-training to evaluate effectiveness of the training over the short and longer-terms. Once the four-hour version is finalized, a more in-depth eight-hour face-to-face version, as well as an online version of the program, will be created.

### **■ Other Initiatives Related to Farmer Mental Health in Canada**

The conversation around farmer mental health in Canada appears to be growing steadily, with numerous agricultural organizations adding mental health and wellness to their agendas. This has received considerable media attention, which presumably has also helped highlight the concerns the agricultural sector is facing. On social media, farmers are sharing their experiences with struggle, and lending support to one another. The Do More Agriculture Foundation (<https://www.domore.ag/>) was started by a group of farmers and has had an active first year generating awareness of farmer mental health and fundraising for farmer mental health resources and activities. Farm Credit Canada recently released a new publication, *Rooted in Strength*, which was delivered to 165,000 rural mailboxes, and 4-H Clubs announced “a two-year, multi-partnership agreement that supports the

emotional and physical well-being of rural youth across Canada through the 4-H Canada Healthy Living Initiative, beginning in spring 2019” (Stark Leader, 2018).

The Canadian government also appears to be listening to the growing conversation around farmer mental health. The House of Commons Standing Committee on Agriculture and Agri-Food recently struck a study on “the mental health challenges that Canadian farmers, ranchers, and producers face” (Parliament of Canada, 2018). Over 50 official witnesses were called to share their testimony related to farmer mental health in Canada. An analysis and report of the study is expected in early 2019.

Overall, these are exciting times for farmer mental health advocates in Canada. Hopefully, appropriate resources will be made available to help develop resources and training programs that will help Canadian farmers thrive in the face of the occupational stresses they face.

## ■ Summary

Results from farmers participating in a national survey demonstrated concerns with respect to perceived stress, depression, anxiety, burnout, and resilience. While farmers expressed positive attitudes towards help-seeking for mental health, it appears some concerns with associated stigmas remain. Further, low levels of satisfaction were expressed with respect to mental health support offered by agricultural industries. Overall, these results suggest the need for further attention and action related to farmer mental health in Canada.

An international scoping review was recently completed, and in-depth qualitative studies are currently underway to help address remaining knowledge gaps related to farmer mental health. A mental health literacy program specific for agriculture has been developed and is currently being formally evaluated. Hopefully, that conversation and action around the important issue of farmer mental health in Canada continues to grow so that we can best support this essential community.

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