

UNDERSTANDING AND COPING WITH FARM STRESS

Family and Consumer Sciences Extension

TYPES OF STRESS

Stress is a term commonly used to describe unpleasant or demanding life circumstances and conditions. The types of stress that we experience are similar throughout our lives but vary because of several factors. The factors may include our age, job, education, income, medical history, where we live, and our relationships with family and friends. For farmers, there are unique physical and mental stressors associated with farm work and lifestyle. Many farmers report high stress because of unpredictable forces like flooding, tornadoes, machinery breakdown, commodity market prices, crop and animal disease, and input costs. In addition to stress from unpredictable forces, farmers and their families can experience stress because of family disagreements about farm operation and succession while other stresses can include fears about losing the farm. Farm families may also experience stress because of working an off-farm job in addition to handling farm responsibilities during critical periods like planting and harvesting season.

Physical stress is easier to recognize because we feel it in parts of our body, like our muscles and joints. As we experience physical stress, we will often feel and report the signs of stress such as headache, muscle and joint pain, back pain, feeling weary or tired. The types of physical stress for farmers are comprehensive but can include a wide range of conditions.

Mental stress is a bit more complex. It may be mistaken for physical stress because our bodies



respond to it similarly to physical stress. There are several factors that affect the severity of mental stress. These factors depend on our psychosocial characteristics like family support, our perceptions of the severity of the stressor, and our farm operation. For example, the stress from a tractor breakdown may be less for a farmer who owns a large farm operation with many tractors and employs a mechanic than a farmer who works an off-farm job and owns only one tractor. Other examples of mental



stress might include arguments over succession and on-farm responsibilities. Although the types of mental stressors differ from person to person, some mental stressors include:

PHYSICAL STRESS	MENTAL STRESS
• Acute illness like a cold • Chronic disease like heart disease • Loss of sleep from long work hours • Muscle strain or sprain or joint pain • Injuries • Chemical exposures or poisoning • Working outside in extreme temperatures • Handling livestock	• Inclement weather patterns • Crop or livestock problems • Machinery or equipment breakdown • Farm succession • Low commodity market prices • Relationship problems • Financial pressures • Lack of legislative support • Family arguments

EFFECTS OF STRESS

Our response to stress begins in the parts of our brain responsible for emotion (amygdala) and survival (hypothalamus) based on whether our body feels discomfort or pain or perceives the situation as difficult or threatening. Once our brain interprets the situation as harmful, painful, or difficult, it signals the nervous system through a set of chemicals called hormones and neurotransmitters. In particular, the brain triggers the body's survival part of our nervous system (sympathetic nervous system), commonly known as our “fight or flight” response. A simple way to think about the “fight-flight” activation is to recall when we might have been startled or felt scared. When our survival system is activated, a series of hormones and chemicals are released. The release dulls our bodies' ability to experience pain, reduces digestion, increases our heart rate and blood pressure, and decreases some of our higher-level brain functions associated with thinking and reasoning. During acute stress, our survival system can be helpful by giving us the ability to overcome challenging environments and problems. However, during long-term or very intense stress, our bodies' response can harm our mind and body. Some of the unwanted and damaging effects of unaddressed stress include:

UNWANTED AND HARMFUL EFFECTS OF STRESS	
• Loss of sleep • Difficulty thinking • Trouble making decisions • Avoidance of stressful circumstances • High blood pressure • Relationship strain or loss • Diabetes • Worsening of health problems	• Social isolation • Chronic muscle or joint pain • Chronic headaches • Heart disease • Alzheimer's disease • Constantly feeling overwhelmed • Depression or anxiety • Thoughts of suicide

EXAMPLES OF SELF-CARE AND COPING STRATEGIES FOR HANDLING STRESS

HOBBIES	RELAXATION TECHNIQUES	EXERCISE
• Outdoor activities • Riding ATVs or UTVs • Boating • Camping • Crocheting • Drawing or coloring	• Stretching • Taking a nap • Eating a favorite meal • Listening to music • Watching a movie • Breathing techniques	• Brisk walks • Hiking • Swimming • Weightlifting • Biking • Canoeing
SOCIAL SUPPORT	PEER GROUPS	READING MATERIALS
• Time with family • Gathering with friends • Community potlucks • VFW meetings • Club gatherings	• Prayer groups • Stress or grief support groups • Estate or financial planning • Association meetings	• Books about reducing stress • Religious or spiritual books. • Magazines or articles on your favorite hobby

HANDLING STRESS

There are multiple methods for handling stress and helping our family, friends, and community members handle their stress, which are called self-care and coping strategies.

Some of the methods used to cope with stress can be very simple and can help calm our survival systems. An easy way to think about this calming effect can be to think of a crying baby. In most instances, we would not let the baby lay in their crib and cry. We would pick them up and hold them, cuddle, and possibly sing or whisper to the baby and offer them a bottle. The goal is to help the child and calm them down. In the same way, we want to calm our nervous system and tell our brains that we are not in a harmful or life-threatening situation. The coping strategies listed above are designed to do just that, calm us down. Remember, though, that using self-care and coping strategies will not make the circumstances go away or never recur. It just means that we can prevent some unwanted outcomes from stress. It also means that we are stronger together as a community, and sometimes helping our family, friends, and community means helping ourselves.

Lastly, if you or someone you know is experiencing depression, anxiety, or suicide symptoms, it is important to connect them to a professional helper. There are many professionals we can reach out to. Those professionals include a pastor, lay counselor, licensed counselor or social worker, or a primary care physician.



SEEKING PROFESSIONAL HELP

If we are experiencing or seeing any of the following in our family or friends, please contact a professional. If it's a friend or family member experiencing any of these, we should encourage them to seek professional help.

Depression: feeling sad, empty, achy, or hopeless; experiencing loss of interest in normally enjoyable activities; thoughts of shame or excess guilt or thoughts about death.

Anxiety: feeling nervous, having a sense of impending doom, panic, or danger, feeling panicked; having excess “what if” thoughts, or worries about future events and situations.

Suicide Warning Signs: talking about being a burden to family and friends, being better off dead, or making comments about feeling hopeless or helpless; expressing feelings of shame or guilt over circumstances beyond control; feeling intolerable emotional pain; gathering lethal means; and putting financial and life affairs in order.

PROFESSIONAL RESOURCES

- Text or call 988 Suicide Prevention Hotline
- Raising Hope Kentucky: <https://www.raisinghopeky.com/>
- Kentucky crisis Line: <https://dbhdid.ky.gov/crisisnos.aspx>



REFERENCES:

- Booth, N. J., & Lloyd, K. (2000). Stress in farmers. *International Journal of Social Psychiatry*, 46(1), 67-73. <https://doi.org/10.1177/002076400004600108>
- Carson, D., Araquistain, M., Ide, B., Quoss, B., & Weigel, R. (1994). Stress, strain, and hardiness as predictors of adaptation in farm and ranch families. *Journal of Child and Family Studies*, 3(2), 157-174. <https://doi.org/10.1007/BF02234065>
- Fraser, C. E., Smith, K. B., Judd, F., Humphreys, J. S., Fragar, L. J., & Henderson, A. (2005). Farming and mental health problems and mental illness. *The International journal of social psychiatry*, 51(4), 340-349. <https://doi.org/10.1177/0020764005060844>
- Freeman, S. A., Schwab, C. V., & Jiang, C. V. (2008). Quantifying stressors among Iowa farmers. *Journal of Agricultural Safety and Health*, 14(4), 431-439. <https://doi.org/10.13031/2013.25280>
- Kemeny, M. E. (2003). The Psychobiology of Stress. *Current directions in psychological science.*, 12(4), 124-129. <https://doi.org/10.1111/1467-8721.01246>
- Mann, J. J. (2003). Neurobiology of suicidal behaviour. *Nature reviews. Neuroscience*, 4(10), 819-828. <https://doi.org/10.1038/nrn1220>
- McEwen, B. S. (2017). Neurobiological and Systemic Effects of Chronic Stress. *Chronic Stress*, 1, 247054701769232. <https://doi.org/10.1177/2470547017692328>
- Milner, A., Witt, K., Lamontagne, A. D., & Niedhammer, I. (2018). Psychosocial job stressors and suicidality: a meta-analysis and systematic review. *Occupational and Environmental Medicine*, 75(4), 245. <https://doi.org/10.1136/oemed-2017-104531>
- Parry, J., Lindsey, R., & Taylor, R. (2005). Farmers, farm workers and work-related stress.
- Rudolphi, J. M., Berg, R. L., & Parsaik, A. (2020). Depression, anxiety and stress among young farmers and ranchers: A pilot study. *Community Mental Health Journal*, 56(1), 126-134. <https://doi.org/10.1007/s10597-019-00480-y>
- van Heeringen, K., & Mann, J. J. (2014). The neurobiology of suicide. *The Lancet Psychiatry*, 1(1), 63-72. [https://doi.org/10.1016/S2215-0366\(14\)70220-2](https://doi.org/10.1016/S2215-0366(14)70220-2)

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September 2022

