

January Update from the Field

Hi everyone,

Wishing you all a happy new year from the Iowa Center for Agricultural Safety and Health! The topic for the month is extreme cold. We have several article abstracts listed below for you to look over. We urge you to think about weather this winter and take precautions for your safety.

As always, if you have any questions or comments or would like the full article, send me an email at stephanie-mcmillan@uiowa.edu

Stephanie McMillan

Hazards for Farmers with Disabilities: Working in Cold Environments (2013)
Geng, Q., Stuthridge, R., & Field, W. *Journal of Agromedicine*, 18(2), 140-150. DOI: 10.1080/1059924X.2013.767762

In consequence of working in cold environments, agricultural workers may be exposed to higher risk of cold-related injuries, compared with the general population. These injuries can include tissue damage due to the exposure to subfreezing temperatures, more generalized symptoms caused by hypothermia, and secondary injuries caused by impaired performance. Risk of cold injury is increased for older workers and for those with disabling health conditions, both of which occur in above-average numbers in agriculture. Based on a selective review of the literature and case studies assembled by Purdue's Breaking New Ground Resource Center, an overview is presented of the mechanisms and symptoms of cold injuries, together with practical suggestions to help reduce risks of cold injuries for workers in agricultural settings. Special attention is given to potential risks to individuals with physical disabilities.

The Impact of Extreme Weather Events on Agriculture in the United States (2011)
Motha, R., Attri, S., Rathore, L., Sivakumar, M., & Dash, S. In *Challenges and Opportunities in Agrometeorology* (pp. 397-407). DOI:

The United States has sustained over 90 weather-related disasters in the past 30 years in which overall damages exceeded \$1 billion. The total normalized losses for the 90-plus events exceeded \$700 billion. Droughts, floods, hurricanes, severe storms, heat waves, freezes, and wildfires pose serious challenges for farmers and the agribusiness community. Socio-economic costs of some of these natural disasters are far-reaching and long-lasting. The enduring changes in climate, water supply, and soil moisture necessitate mitigation measures and adaptation strategies to cope with these changes in order to develop effective long-term risk management plans. The preparedness strategies should include alternatives to current agricultural management schemes in certain regions.

Cold-related conditions and agriculture. (2012)

Farm and Ranch Extensions in Safety and Health (FRESH) Community of practice. Retrieved from: <https://ag-safety.extension.org/cold-related-conditions-and-agriculture/>

Farmers and ranchers complete tasks in all types of weather conditions. Extreme weather conditions put agricultural producers at risk for heat-related and cold-related illnesses and injuries. (Click [here](#) to view an article about heat-related illnesses) Individuals working in extremely cold or wet weather can experience such occupational health conditions as **hypothermia**, **frostbite**, **trench foot**, and **chilblains**.
