

## Overview

Heat-related illness (HRI), such as heat exhaustion or heat stroke, can occur in otherwise healthy workers. Agriculture and forestry have a high burden of fatal and non-fatal HRI compared to other industries. Washington State adopted workplace safety standards addressing outdoor heat exposure in 2008 to prevent HRI.

The objective of this study was to describe the characteristics of Washington State HRI workers' compensation claims in the agriculture and forestry sectors. Demographic, work-related, environmental, temporal, geographic, clinical and cost information is included in the analysis. The characteristics of Washington's Agriculture Heat Rule citations over a four year period were also described.

This research was done as the initial phase of a larger study focusing on the risk factors for heat-related illness in agricultural workers, and was a collaboration between the University of Washington's Department of Environmental and Occupational Health Sciences (DEOHS) and SHARP.

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### Research for Safe Work

The SHARP Program at the Washington State Department of Labor & Industries partners with business and labor to develop sensible, effective solutions to identify and eliminate industry-wide hazards. Learn more at:  
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## Heat-Related Illness in Agriculture and Forestry

Heat-related illness in Washington State agriculture and forestry sectors

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### Key Findings

#### Heat-related illness claims, 1995-2009:

- There were 84 accepted HRI claims during the survey period:
  - Approximately 15% involved serious health effects, including heat stroke and acute renal failure
  - 11% involved inpatient hospitalization or death
- The majority of claims were in crop production and support.
- The average maximum temperature was 95°F for outdoor HRI claims.
- The average cost of medical only HRI claims in agriculture and forestry was more than 4.5 times greater than the average medical only claim cost in those industries.

#### Agriculture Heat Rule citations, 2009-2012:

- There were 60 citations during the study period, most for violations involving lack of worker training or not having a heat safety plan.

### Impact

Agriculture and forestry workers face many potential risk factors for heat-related illness. Collaboration between employers and workers to reduce modifiable risk factors could lower the risk of occupational HRI. Prevention efforts should be focused on high-risk industry subsectors, taking into account geographic region and time of year.

### Find the article here:

<https://onlinelibrary.wiley.com/doi/abs/10.1002/ajim.22357>

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