

# KNOWLEDGE AND PRACTICES TO AVOID HEAT-RELATED ILLNESS AMONG HISPANIC FARMWORKERS ALONG THE FLORIDA-GEORGIA LINE

Farmworkers who work in field crops are at increased risk for heat exposure and heat-related illness (HRI). The objectives of this study were to (1) train crew leaders to use the Occupational Safety and Health Administration (OSHA) Heat Safety Tool app and evaluate the utility of the app from a crew leader perspective; and (2) characterize heat safety knowledge, preventive practices, and perceptions of HRI risk among Hispanic farmworkers in the Southeast.

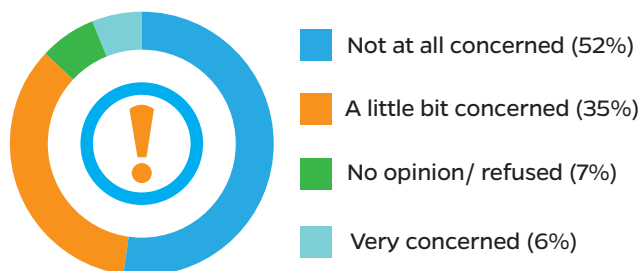
## WHAT IS HEAT-RELATED ILLNESS?

Heat-related illness (HRI) is a threat to outdoor workers unless proper preventive measures are taken. If not recognized quickly, the effects of HRI increase in severity. Initial symptoms can include rash, dizziness, sweating, thirst, cramps and rapid pulse. Severe HRI causes fever, fatigue, nausea, confusion and low blood pressure. Without intervention, HRI can result in heat stroke, which is life-threatening.

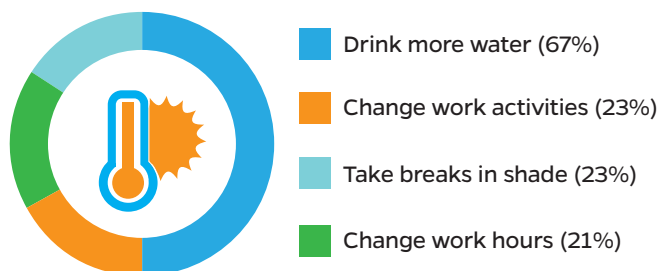
High temperatures along the Florida-Georgia border place outdoor workers in this region at a higher risk of developing HRI symptoms. This study measured the acceptability of the Occupational Safety and Health Administration (OSHA) Heat Safety Tool app and identified Hispanic farmworkers' baseline knowledge of heat safety practices. Additionally, this research contributed to a greater understanding of training needs for H-2A workers, who represent a large population of farmworkers in Florida and Georgia.

Prior to the beginning of harvest season in April 2018, six crew leaders completed the OSHA heat illness prevention training. This training provided information on HRI symptoms and corrective action to reduce heat stress. Following the training, crew leaders downloaded the OSHA Heat Safety Tool app to their cellphones. In the following months during 2018, a mix of H-2A and seasonal farmworkers responded to a variety of survey questions regarding HRI knowledge and prevention.

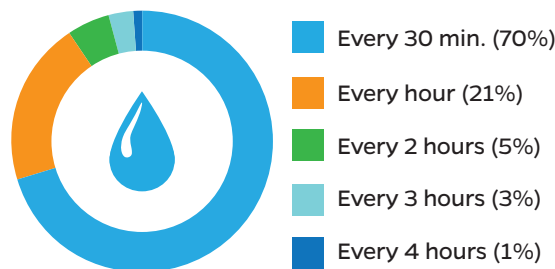
## LEVEL OF CONCERN REGARDING HRI



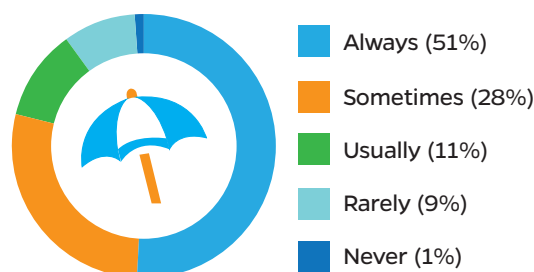
## HRI PREVENTION METHODS TAKEN



## FREQUENCY OF WATER CONSUMED WHILE WORKING



## DURING PAST WEEK, BREAKS TAKEN IN SHADE



\*figured obtained from responses of 101 Hispanic farmworkers in 2018 survey in Florida and Georgia.

## RESULTS

Data in this study was collected from 101 farmworkers in Florida and Georgia. Most were Mexican-born (97%), with more men (60%) in the sample than women (40%).

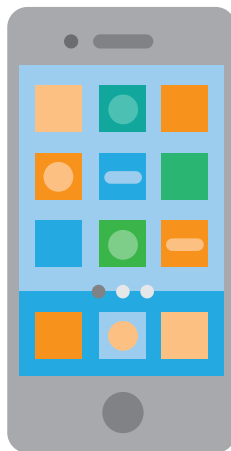
Proper hydration is one of the most important factors in reducing the risk of HRI. In this study, 70% of respondents reported they drank water at least every 30 minutes while working outside. Water was the most common form of hydration, with Gatorade second. Sixty-two percent of respondents indicated they always or usually take breaks in the shade. Taking breaks in the shade, having access to medical attention, and the ability to take regular breaks during a work shift can significantly reduce HRI symptoms.

Despite the risks of working in the heat, farmworkers did not appear to be especially concerned about the health impacts of HRI. Only 6% reported being “very concerned,” while 35% were “a little concerned” and 52% were “not concerned at all.”

In the United States, there is no national standard to protect farmworkers from HRI. The OSHA Heat Safety Tool app is an educational intervention aiming to prevent HRI among outdoor workers.

**Monitoring current weather conditions and responding accordingly reduces**

**HEAT-RELATED ILLNESS**



**Crew leaders rated the OSHA Heat Safety Tool app highly. Eighty percent of farmworkers owned a cellphone and could access the app.**

The app provides HRI prevention tips relative to the current temperature. Crew leaders who tested the app rated it highly. Eighty-one percent of farmworkers owned a cellphone and were able to access the app’s features.

## RECOMMENDATIONS

Based upon the results of this study, it is recommended regular training opportunities should be provided for farmworkers regarding HRI prevention. Monitoring weather conditions and responding accordingly can greatly reduce the onset of HRI symptoms. Employers are encouraged to provide water and shade structures for workers to utilize throughout their shifts. Modifying work schedules for newly hired workers allows for an acclimatization period which allows workers to get accustomed to working in the heat. Improving HRI knowledge among farmworkers can reduce the occurrence of heat-related illness and death.

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**The information in this issue guide was adapted from the following journal article:**

Luque, J.S., Becker, A., Bossak, B. H., Grzywacz, J. G., Tovar-Aguilar, J. A., & Guo, Yian (2019). Knowledge and practices to avoid heat-related illness among hispanic farmworkers along the Florida-Georgia line. *Journal of Agromedicine*. doi: 10.1080/1059924X.2019.1670312.



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