September 2015 Alive & Well Updates: PPE on the Farm

Personal Protective Equipment Use and Handwashing Among Animal Farmers: A Multi-site Assessment. Odo, Nnaemeka U; Raynor, Peter; Beaudoin, Amanda; Somrongthong, Ratana; Scheftel, Joni M; et al. Journal of Occupational and Environmental Hygiene, 12(6) 2015: 363.

The goal of this study was to compare and contrast the use of personal protective equipment (PPE) and the practice of handwashing among participants of four studies assessing poultry and swine farms in the midwestern United States and in Thailand. This largely descriptive exercise was designed to assess and compare the frequency of these protective practices among the study populations. There were a total of 1,113 surveys analyzed across the four studies. The respondents included workers in direct contact with animals as well as flock owners and veterinarians tending to farms. Handwashing was the most common practice observed among all participants with 42% "always" and 35% "sometimes" washing their hands after contact with the animals. This practice was least common among Minnesota swine workers. Even Thai poultry farmers, who demonstrated the lowest overall PPE use, reported a higher frequency of handwashing. Mask use during animal farming activities ("always" or "sometimes") was least commonly practiced, ranging from 1% in Thailand to 26% among backyard poultry farmers in Minnesota. Minnesota poultry and swine farmers had similar frequencies of mask (26%) and glove use (51% and 49%). All other comparisons differed significantly across the four sites (p-values <0.05). The use of PPE in animal farming differed by study location and is likely related to prevalent norms in the respective regions. Overall, the use of PPE did not appear to be influenced by the particular animal (poultry or swine) being farmed. These findings may prove useful to regulating bodies and farm owners in formulating policy or planning strategies for improving personal hygiene practices in animal farming and preparing for influenza and other potential zoonotic disease outbreaks.

Assessment of Personal Protective Equipment Use Among Farmers in Eastern North Carolina: A Cross-sectional Study. Kearney, GD; Xu, XH; Balanay, JAG; Allen, DL; Rafferty, AP. JOURNAL OF AGROMEDICINE JAN 2 2015 20(1): 43-54.

Agriculture consistently ranks among the top hazardous occupations, accounting for a significant number of injuries and fatalities in the workplace. Eastern North Carolina has a significant number of small, independent, family-run, owned, and operated farms. However, little is known about perception, behavior, training, accessibility, or purchasing personal protective equipment (PPE) for safety among farmers in the region. In this study, telephone interviews were conducted among participating farmers between March and June 2012 (N = 129). Univariate and bivariate analyses were conducted to examine associations between PPE behavior and workplace hazards, health-related concerns, and wearing and purchasing PPE. Findings indicated that personal behavior of wearing hearing protection devices (HPDs) and protection from the sun among farmers was low. However, a relatively high percentage of farmers reported wearing PPE when working with agricultural chemicals. Most farmers received training from agricultural extension offices. The findings indicate that, in general, farmers are well aware of the risks associated with occupational hazards and recognize concern for health and safety protection in the workplace. Transitioning these concerns into preventative action remains a challenge and priority for the agricultural health professional.

Keeping workers safe: Does provision of personal protective equipment match supervisor risk perceptions? Clouser, JM; Swanberg, JE; Bundy, H. AMERICAN JOURNAL OF INDUSTRIAL MEDICINE AUG 2015 58(8) Special Issue: SI: 886-896.

Background: Although farm management may understand agriculture's risks, they may not provide personal protective equipment (PPE). This study describes thoroughbred farm management's risk perceptions, provision of PPE, and factors that influence its provision.

Methods: Thirty-five representatives from 26 farms participated in a 1-4hr semi-structured interview covering perceived risks associated with horse work and perspectives and provision of PPE. Interviews were audio-recorded, transcribed, entered into ATLAS.ti, and analyzed by three coders.
Results: Management cited horse-related tasks as most dangerous, yet horse-related PPE as least provided because of 1) differences in farm context, 2) the belief that workers were most important agents in their safety, 3) lack of confidence in its effectiveness, and 4) the perception that risk could never be eliminated.
Conclusions: PPE provision was limited by management's poor perceptions of its efficacy relative to other factors. Future research should explore workers' perceptions and PPE's effectiveness in averting horse-related injury. Am. J. Ind. Med. 58:886-896, 2015