



Sean Tormoehlen originally is from Oxford, IN. He completed his undergraduate degree in entomology from Purdue University in 2016. After taking a gap year he came to Purdue to work on his Masters with a focus towards agricultural safety and health under the guidance of Dr. Bill Field. After graduation plans consist of getting married and travel, including a thru-hike of the Pacific Crest Trail.

# Agricultural & Biological ENGINEERING

## Thesis Defense

**Speaker:** Sean Tormoehlen

**Title:** ANALYSIS OF SENIOR FARMER WORK-RELATED FATALITIES IN INDIANA WITH APPLICATION OF FINDINGS TO INJURY PREVENTION EFFORTS

**Major Professor(s):** Dr. William Field

**Date:** Monday, July 29, 2019

**Time:** 1:30 PM

**Location:** Lilly Hall, room 2-425

### Abstract:

The primary goal of this research was to summarize the fatalities of Indiana farmers 55 years and older and to develop evidence-based intervention strategies targeting older farmers who perform activities that involve the cutting and trimming of trees. The primary activities consisted of (1) preparing a summary of occupational farm-related fatalities of farmers who were 55 years and older, (2) preparing a summary of occupational farm-related fatalities of older farmers who were performing activities in a woodlot setting or that included the occasional cutting and trimming of trees, and finally (3) the development of an evidence-based injury prevention strategies targeting older farmers who conduct occasional woodcutting activities. The summary of older Indiana farmer fatalities identified a total of 388 fatalities reported between 1988 and 2017 with an increase in the number of reported fatalities over the period of 2012-2017. Tractors were identified as the most common source of injury (40.5%) with tractor overturns involved in no fewer than 86 cases. Older farmer fatalities for occasional woodcutters accounted for 40 fatalities with the cutting and trimming of trees to be the most common cause of injury (67.5%). Core designed safety competencies were identified that were used to develop injury prevention strategies that were based upon the summary of injuries, areas of concerns reported in the review of literature and the results gathered from the summaries of Indiana older farmers killed while performing woodcutting activities. A pilot evidence-based intervention instructional usable was developed using a panel of experts to be used by Extension Educators to increase awareness of the target population of current safety practices relating to woodlot activities.

### Application:

This work examines the safety risks of older farmers and addresses the gap for educational strategies targeting older farmers who perform occasional wood cutting and tree removal activities