Occupational Risks of Migrant Farm Workers In North Carolina
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Introduction
Migrant farm workers face many occupational challenges. They work long, strenuous hours and are exposed to heat as well as the elements throughout the day. Other exposures that migrant workers in North Carolina face are pesticides and insufficient housing. Lack of comprehensive Migrant farm worker labor laws in North Carolina only exacerbate the negative health effects felt by this population.

Objectives
The objective of this systematic literature review is to identify the occupational risks that migrant farm workers face while working in North Carolina farms.

Methods
Study Selection Flow Diagram

Records identified through database searching (n = 3,480 )
Records identified through other sources (n = 10,971 )
Records screened (n = 14,451 )
Full text articles excluded with rationale (n = 120 )
Full text articles excluded without rationale (n = 38 )
Qualitative synopses (n = 68 )

Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Risk of bias across studies</th>
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<tbody>
<tr>
<td>Low</td>
<td>Moderate</td>
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<tr>
<td>Arcury, 2016</td>
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<td>Arcury &amp; Tellon, 2016</td>
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<td>Howard, 2016</td>
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<td>Howard, 2014</td>
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<td>Kearney, 2015</td>
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<td>Arcury, 2013</td>
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<td>Arcury, 2010</td>
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<td>Mirabelli, 2010</td>
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<td>Arcury, 2008</td>
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<td>Alkonithan, 2007</td>
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<td>Alkonithan, 2001</td>
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<td>Galis, 1986</td>
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- The studies within this systematic review varied in occupational exposures from tobacco, sun, farm working, and pesticides.
- The outcomes included alcohol dependence, postural sway, pesticide detection in urinary metabolites, contact dermatitis, Green Tobacco Sickness, heat related illness (HRI), and increased methylation.

Strong Associations were found in several studies.
- The study that examined alcohol dependence found that almost half of farmworkers compared to nonfarmworkers engaged in heavy episodic drinking.
- Even stronger evidence showed that 94% of farmworkers studied reported working in extreme heat conditions, while in an additional study, 72% of farm workers studied reported having at least one Heat Related Illness symptom.
- Of the farmworkers studied, about one quarter presented with Green Tobacco Sickness, with an incidence rate of 1.88 per 100 days.

Conclusions
The results of this systematic review shows that there is conclusive evidence that Latinx migrant workers in North Carolina face large and varied amounts of occupational hazards that negatively affect their health. Pesticide exposure may be the most widely known and studied occupational hazard in migrant farm working populations, but there are many other outcomes including heat related illnesses and Green Tobacco Sickness. These occupational hazards combined with poor housing conditions and lack of resources leave this migrant population with increased risk for poor health.

Recommendations
- Support advocacy groups
  - Farmworker Advocacy Network
- Purchase Fair Trade Products
- Equitable Food Initiative
- Supporting Consumer Engagement
- Student Farmworker Alliance
- 4 Fair Food Tour
- North Carolina Farmworker Health Program

References

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