

Sustainable Agriculture Practices to Protect Vulnerable Communities

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What's the issue?

In North Carolina, an economy highly reliant on its agriculture industry, the mass production and processing of food and other agricultural products utilizing pesticides and harmful fertilizers has left the state to cope with the effects of non-renewable fossil fuels and other harmful side effects of the industry.

While the agriculture industry has taken a toll on the environment, its adverse effects also disproportionately harm the laborers upholding our food chain.



Figure 1: Map of the Top 10 Counties by Worksite Location of H-2A Positions in North Carolina in 2020

Farmworkers face...



Economic Barriers

- > lack of legal protections
- > risk of deportation
- > low wages
- > poverty

Disproportionate Affect on Female Farmerworkers

Women working in the agricultural industry face a number of risks that can compromise their physical health, particularly their reproductive health. One of these risks includes exposure to pesticides which can occur through inhalation, dermal contact, ocular, or ingestion. Pesticide exposure is strongly associated with negative health outcomes among adult women and developmental outcomes in children.



- pesticide exposure
- > heat illness
- > musculoskeletal and eye damage
- >respiratory illness

pesticides can lead to Long-term exposure to neurocognitive decline, pulmonary disease, cancer, and reproductive problems. A study conducted from 1998-2007 examining pesticide-related illnesses and injuries in farmworkers found that female farmworkers are twice as likely to experience an exposure-related illness or injury than men.



Local to Global Impact

The results from this research provide insight into the lived experience of farmworkers upholding the food/agriculture industry in North Carolina. However, the implications of this study can go far beyond North Carolina as the protection of farmworker rights is a global issue and improvements in one geography may be applicable to others.



Research Methods

This literature review examines relevant research on working conditions for Latinx women in the agricultural sector of North Carolina. The review results were compiled and analyzed and included relevant qualitative and quantitative data from the literature.

Policy Recommendations

In order to effectively advance health equity for North Carolina's most vulnerable farmworkers, it is imperative to address social determinants of health. This includes livable wages and benefits, freedom from discrimination and obstacles to joining a labor union, and safe working environments. A number of strategies and policy recommendations can be adopted to integrate more equitable labor practices into sustainable food programs.

Prioritizing Work Organization for Vulnerable Populations

Participatory Approaches

Agrotech to improve working conditions

Enforcing more inclusive work organization policies will amplify the experiences of female migrant agricultural workers and work to improve their occupational health outcomes.

Cultivating supportive and safe environments through improved ergonomic policy designs for migrant agricultural workers, especially women, will protect workers in the long term.

Instituting micro and macro-level support for vulnerable populations has been identified as an effective recommendation to improve occupational safety policy and work organization. This includes social support, management training, job skills training programs, and wage premiums for hazardous jobs (Arcury et. al., 2014).

Introducing an accountabiltiy approach amongst farmowners an farmworkers to close the feedback loop and promote the reporting and addressing of greivances.

Instituting an accountability framework modeled after the Equitable Food Initiative's can disrupt the power dynamic currently present within large farms.

Promoting a multi-stakeholder participatory approach into farm labor regulations and policies will help empower historically marginalized employees without fear of reprecussion.

Utilizing agrotechnologies to institute more sustainable approaches to agriculture not only works to preserve the environment but promotes the social protection of vulnerable populations like female farmworkers.

Integrated pest management (IPM) has been identified as a means to increase agricultural profits, improve living conditions, and reduce risks of pesticide exposure.

Integrated pest management is an environmental and socially conscious approach that works to identify pest and site-specific acceptable pest levels, emphasizing control of pest populations rather than eradication.