The primary goal of our project is to identify why and where food loss occurs in the pre-consumer stages of poultry and swine production in the state of NC for the Environmental Defense Fund (EDF) in Raleigh. EDF recognizes that food waste is a significant contributor to climate change through the emission of greenhouse gasses at different stages of the supply chain, and as a top producer of poultry and swine, this challenge is pertinent to NC. Our team conducted an in-depth analysis of secondary data and literature and conducted primary research with relevant stakeholders to explore this topic.

### CHALLENGES

#### Project Challenges:
- Lack of data on specific location, quantity, and cause of food loss and waste
- Data primarily specific to consumption-level waste
- Federal and state policies overseeing and regulating these industries are lacking

#### Internal Challenges:
- Non-response & majority swine-representing interviewees.
- More third-party organizations than farms or processing facilities/integrators
- Lack of specific data to support testimonies about where the most waste is actually occurring

### MEAT LOSS & WASTE

- **Non-response & majority swine-representing interviewees.**
- **More third-party organizations than farms or processing facilities/integrators**
- **Lack of specific data to support testimonies about where the most waste is actually occurring.**

### POULTRY FINDINGS

- Small processors dominate poultry industry in NC
- Poultry excluded from major federal regulations such as the 28-Hour Law, Humane Slaughter Act, and the Animal Welfare Act
- Inconsistency in reporting of waste & byproducts in top poultry producing facilities

### SWINE FINDINGS

- **Small processors dominate poultry industry in NC**
- **Poultry excluded from major federal regulations such as the 28-Hour Law, Humane Slaughter Act, and the Animal Welfare Act**
- **Swine industry is more regulated than the poultry industry.**
  - **Swine Health Protection Act & 28-Hour Law**
  - There are no available policies preventing deaths in the swine supply chain from causes other than disease
  - **Main regulations and guidelines focus on humane treatment**

### INTERVIEW FINDINGS

- **Mortality Disposal Options Have Changed Throughout the Years:**
  - **Bury:** humane, simple, inexpensive, no regulations
  - **Disposal:** dumping dead feed to the use of spare parts
  - **Rendering:** acceptable, reputable
  - **Composting:** acceptable, reputable

- **Factors that Influence Food Loss in Pre-Consumer Stages of Poultry and Swine Production:**
  - **Loss of byproducts**
  - **Perishability of products in retail**
  - Federal regulations to ensure safety and protect human health

- **Living conditions:** ensure stress, disease, and cause mortality

### POLICY RECOMMENDATIONS

#### Recommended Strategies for Reducing Food Loss

1. Reduce animal stress and implement emergency planning.
2. Develop a regulatory scheme that establishes waste treatment on farms and improves ventilation within hog barns & chicken houses.
3. Improve rendering options for small farms & processing plants through a policy that facilitates the aggregation of byproducts
4. Provide state funding for on-farm composters & mortality reduction research.
5. Include poultry in major federal regulations such as the 28-Hour Law, Humane Slaughter Act, and the Animal Welfare Act

### FOOD LOSS & WASTE IN THE SWINE AND POULTRY INDUSTRIES IN NORTH CAROLINA

**FOOTNOTES & REFERENCES**

2. Gibeson, K. (2021). In partnership with the Environmental Defense Fund of Raleigh, NC

**HYPERLINK TO REFERENCES**

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**GRAPHIC SOURCES:**

- **FOOD LOSS & WASTE:**
  - In partnership with the Environmental Defense Fund of Raleigh, NC
  - **HYPERLINK TO REFERENCES**