## PICO 3:

PAPER TITLE

**AI for Pest and Disease Management**

Authors of paper:

Smith Andrew

Paper Description:

- **P (Population):** Large-scale commercial farms focused on staple crops like corn, wheat, or soybeans.

- **I (Intervention):** An AI-based predictive analytics platform. This platform uses machine learning models to analyze a wide range of data, including historical yield data, real-time weather, soil nutrient levels, and satellite imagery, to accurately forecast crop yields months in advance.

- **C (Comparison):** Traditional yield prediction methods. This includes farmer's estimates based on experience, historical averages, or simple statistical models that don't account for real-time environmental variables.

- **O (Outcome):**

    - **Improved accuracy of yield forecasts:** Measured by the difference between the predicted and actual yield.
    - **Enhanced supply chain and market planning:** The ability for farmers to make better decisions regarding sales contracts, storage, and logistics based on reliable forecasts.
    - **Financial optimization:** Reduced risk and increased profitability by accurately predicting harvest size and timing.
    - **Resource allocation:** The ability to fine-tune resource application (e.g., fertilizer, irrigation) based on real-time yield potential.