



AgAID  
Institute

National AI Institute  
for Transforming Workforce  
& Decision Support

# Artificial Intelligence to Support Farm Labor

 National Institute of Food and Agriculture  
UNITED STATES DEPARTMENT OF AGRICULTURE

## WHO WE ARE

We build and foster human-AI partnerships to sustain specialty-crop agriculture and help feed our growing population. We bring together top researchers from diverse disciplines to empower agriculture professionals with trailblazing AI-tools to assist decision making. Our research can transform the way AI systems are designed and built to solve complex societal problems.

Our **Labor Intelligence Thrust** is developing innovative and inclusive human-AI workflows and improving the efficiency of farm robots and the productivity of farm workers.



Learn more about our work  
& subscribe  
[www.agaid.org](http://www.agaid.org)



## HOW WE HELP



### Human-Robot Dormant Fruit Tree Pruning

Training machine learning models for pruning based on worker expertise | simulating orchard environments | improving robot sensing and control



### Human-Robot Fruit Tree Flower and Blossom Thinning

Improving flower-thinning decision making | developing deep learning models for flower detection | improving human-robot collaboration and human-AI workflows for thinning



### Nut Harvesting

Developing the next generation of intelligent nut harvesting machines | Utilizing cutting-edge sensor technology and AI control systems to optimize tree-nut shaking