POTATOES & PESTS

PAPAS

Actionable Science Against Nematodes

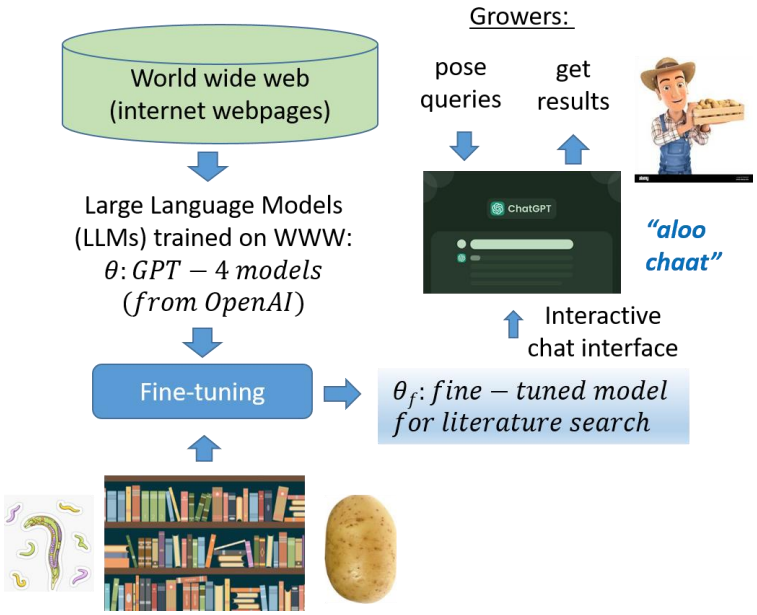
USDA NIFA 2022-51181-38450

Developing Data-driven and Interactive AI Capabilities for Potato Nematode Decision Support

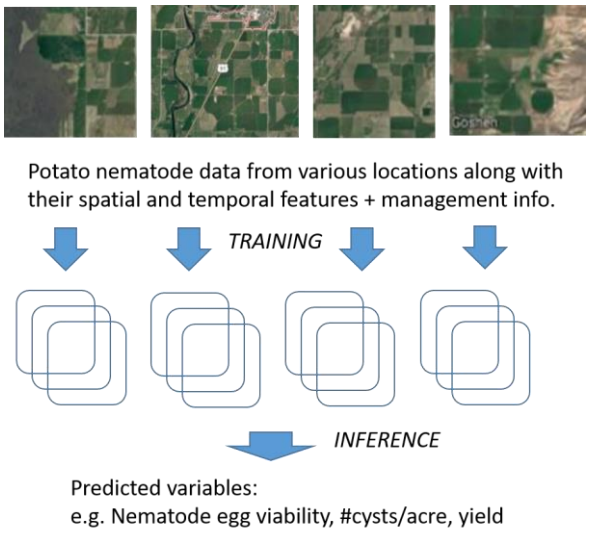
Root-knot nematode (RKN) is a soil-borne pathogen that impacts multiple crops including potatoes grown in the Pacific Northwest (PNW). Computational tools are necessary for modeling and analytics for nematode detection, mitigation, and decision support in general. Two sets of major tasks are being carried out within the computational group using Artificial Intelligence (AI) and machine learning (ML) methods.

- **Task A:** Development of interactive AI tools for querying literature for nematode detection, mitigation, and control for potatoes.
- **Task B:** Development of ML-based data-driven predictive capabilities to predict nematode detection based on field attributes (both management and environment).

Task A: Develop interactive tools for potato nematode literature querying



Task B: Develop predictive ML tools for potato nematode decision support



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