Pestector

Plant Disease Classification System

Pestector is an AI-powered system designed to identify plant diseases and provide actionable treatment recommendations. Our mission is to help farmers and gardeners maintain healthy crops and reduce losses due to plant diseases.

Model Used: VGG16 (Fine-tuned for plant disease classification)
Accuracy: 98.6% (Tested on PlantVillage dataset)
Training Data: 38 classes, 54,305 images

Why Plants Matter:
Plants are essential for human survival. They provide food, oxygen, and raw materials for medicines, clothing, and shelter. Protecting plants from diseases ensures food security and environmental sustainability.

Analyzed Plant Image

Classification Results

Plant Species:	Apple
Condition:	Cedar apple rust
Confidence:	100.0% (High)
Severity Level:	Medium

Disease Information

• Produces rusty colored spots

Treatment Recommendations

Apply fungicides such as myclobutanil or triadimefon. Remove nearby cedar trees if possible.

Prevention Tips

- Regularly inspect plants for early signs of disease
- Maintain proper spacing between plants
- Avoid overhead watering to reduce leaf wetness
- Remove and destroy infected plant parts promptly
- Use disease-resistant plant varieties when available

Reason for Disease

Cedar apple rust is caused by the fungus Gymnosporangium juniperi-virginianae. It requires both apple and cedar trees to complete its life cycle.