

Plant Leaf Disease Detection System

Automated Image Processing | SVM Classification

1. Original



2. Resized



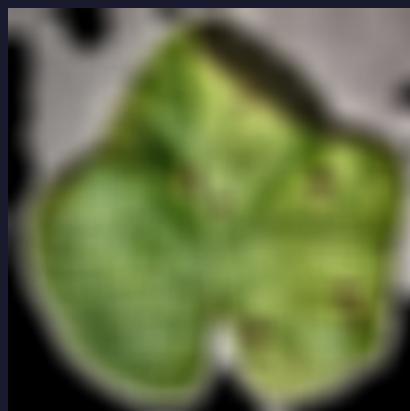
3. Enhanced



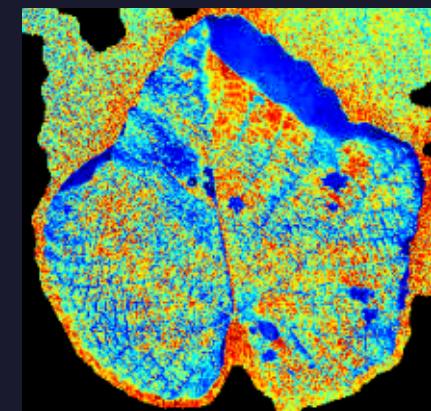
4. BG Removed



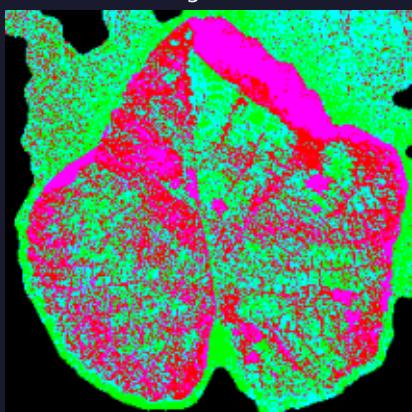
5. Blur



6. HSV



7. Segmented



8. Pipeline

- 1.Resize
- 2.CLAHE
- 3.Remove BG
- 4.Blur
- 5.HSV
- 6.Segment
- 7.Features
- 8.SVM

DISEASED

Grape - Leaf Blight

91.5%

Treatment Recommendations

Grape - Leaf Blight | Confidence: 91.5%

- Fungal disease causing irregular brown lesions with yellow halos, leading to premature defoliation

□ Chemical Treatments

1. Mancozeb 75% WP

Dosage: 2.5 grams per liter

Apply: Spray at 10-day intervals during rainy season

Cost: ₹200-300 per 500g

2. Chlorothalonil 75% WP

Dosage: 2 grams per liter

Apply: Apply every 2 weeks, alternate with other fungicides

Cost: ₹300-400 per 250g

3. Carbendazim 50% WP

Dosage: 1g per liter

Apply: Spray at 15-day intervals

Cost: ₹150-200 per 100g

□ Organic Treatments

1. Neem Oil + Garlic Extract

Dosage: 5ml neem oil + 10ml garlic extract per liter

Apply: Spray weekly, especially undersides of leaves

Cost: ₹150-200

2. Cow Urine Fermented Solution

Dosage: 100ml fermented cow urine per liter water

Apply: Spray twice a week early morning

Cost: Free (organic farm input)

3. Baking Soda Spray

Dosage: 5g baking soda + 5ml oil per liter

Apply: Spray every 5-7 days

Cost: ₹50-80

□ Prevention Tips

1. Remove and destroy all infected leaves immediately
2. Improve air circulation by proper pruning and thinning
3. Avoid overhead irrigation - use drip irrigation at soil level
4. Apply thick organic mulch to prevent soil splash onto leaves
5. Ensure adequate spacing between vines (minimum 6-8 feet)
6. Remove weeds that block airflow
7. Apply preventive fungicides before monsoon season

□ **Treat as soon as first symptoms appear on leaves. Disease is most manageable in early stages before widespread defoliation occurs.**