

AgroTech Solutions - Soil Analysis Report

Professional Soil Water Characteristics Analysis

Generated for: Enterprise Test User (enterprise@example.com)

Company: AgroTech Solutions

Report Date: 5/29/2025

Analysis Type: undefined Plan - Custom Report

Executive Summary

Soil Classification: loam

Water Holding Capacity: 0.13% Plant Available Water

Drainage Characteristics: 3.2 mm/hr saturated conductivity

Overall Assessment: Limited water holding capacity - may require irrigation management.

Detailed Soil Composition

Sand Content

35%

Clay Content

25%

Silt Content

40%

Organic Matter

3%

Hydrological Properties

Field Capacity (θ_{FC})

0.28%

Permanent Wilting Point (θ_{PWP})

0.15%

Plant Available Water (PAW)

0.13%

Saturation Point (θ_S)

0.42%

Physical and Chemical Properties

USDA Texture Classification

loam

Saturated Hydraulic Conductivity

3.2 mm/hr

Bulk Density Factor

1 g/cm³

Gravel Content

0%

Management Recommendations

- Implement water conservation practices
- Consider drought-tolerant crop varieties
- Install drainage systems if waterlogging is a concern
- Consider raised bed cultivation

Generated by AgroTech Solutions using FlahaSoil Enterprise Analysis System

Based on Saxton & Rawls (2006) Soil Water Characteristics methodology

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