AgroTec Center at Palestine Polytechnic University (PPU)

The AgroTec Center at Palestine Polytechnic University was successfully established and partially equipped through the AgroTec project. The Center serves as a dedicated hub for smart and sustainable agriculture, integrating advanced laboratory and field technologies to support education, research, and community services.

Through the project, PPU acquired specialized equipment including an AgriLive remote monitoring station, a chlorophyll meter for crop performance assessment, a Kjeldahl digestion unit for nutritional analysis, and additional molecular and analytical tools for crop disease diagnosis. These technologies strengthen the University's capacity in precision agriculture, soil and crop monitoring, and data-driven agricultural applications.

The AgroTec Center functions as a "living lab," directly supporting the academic diplomas and vocational training programs developed within the project. It provides hands-on, practice-oriented learning environments where students apply theoretical knowledge using real equipment and digital monitoring systems. Through structured training sessions, field demonstrations, applied research, and farmer-oriented workshops, the Center enhances student employability while strengthening the link between academic education and labor market needs.

In addition to academic training, the Center delivers technical services to farmers, cooperatives, NGOs, and private sector stakeholders, contributing to improved agricultural productivity and sustainability at the national level.

Equipment Provided Through the AgroTec Project

1. Kjeldahl Digestion Unit (Digestor)

Supports plant nutritional and physiological status analysis and is a key component of diagnostic and soil fertility courses.

2. AgriLive Monitoring System (IoT-Based Field Station)

Enables real-time monitoring and data recording of field and soil parameters, including temperature, light intensity, soil moisture, and air humidity, supporting precision agriculture practices.

3. Chlorophyll Meter

Used to assess chlorophyll content and plant nitrogen status, providing rapid indicators of crop nutritional health.

Services Provided Through the AgroTec Center

- Chemical quality testing of synthetic fertilizers
- Chemical quality testing of compost
- Heavy metal analysis in soil
- Nitrogen content analysis in compost
- Protein content analysis in key crops (barley, corn, wheat, etc.)
- Protein analysis in nutritional supplements
- Sample preparation for heavy metal analysis