

PROFEL Clima® App Supports Precision Agriculture & Weather Readiness in Bolivia



OVERVIEW

Bolivia is a country of more than 12 million people and the world's 10th largest producer of soybeans. Regrettably, it is also an area of high risk for climate variability in the coming years due to rising temperatures and melting glaciers. To ensure the population can maintain successful harvests and resilience in the face of severe weather and seismic events, expanding environmental monitoring is key to Bolivia's continued growth and development. As one of the country's leading technology providers, PROFEL SRL developed the Clima® app for weather monitoring and alerting. Their goal was to enable farmers and protect the community, but they needed a reliable backbone of weather stations and sensors to create the actual monitoring network. That's where their partnership with Davis Instruments, an AEM brand, came into play.

Overcoming local challenges

Bolivia covers over 385,000 square miles, and elevations across the country vary from over 20,000 feet in the Andes mountains to under 300 feet in the south. Furthermore, the scale and sophistication of agricultural operations vary widely across the country. To ensure the CLIMA app provided maximum value to the greatest percentage of the population as possible, they required a solution that would:

1. CREATE A HYPERLOCAL WEATHER MONITORING NETWORK

The solution needed to provide localized real-time data as well as forecasts to farmers and community leaders in a variety of settings.

2. PROVIDE THE DATA BACKBONE FOR THE CLIMA APP

The solution needed to be able to capture a variety of different factors (temperature, humidity, UV levels, soil conditions, etc.).

3. OFFER A WIDE VARIETY OF WEATHER INSIGHTS

The solution needed to provide data that could inform both agricultural operations and overall severe weather resilience.



MEET PROFEL SRL

PROFEL SRL was founded in 1991 with the mission of protecting the planet by creating innovative ecotechnologies. In 1993, they began developing agricultural technology, focusing on precision sprayers before adding weather stations from Davis Instruments in 1995. Today, their solutions support all sectors of the Bolivian economy. They enable area farmers through the Clima app for weather insights as well as the Aplicar app for optimized fertilization and pest control. You can learn more at www.profel.net.



Through our Clima app, Davis weather stations are putting weather data directly in the hands of the people who matter most to support both the agriculture business and civil matters across Bolivia. These stations are providing great forecasts, enabling pest and disease alerts, and even helping communities minimize the impacts of floods, fire, and frosts.

— Antonio Antezana,
General Manager
PROFEL SRL

The Solution: Weather & soil monitoring powered by Davis Instruments

To create a powerful monitoring backbone for Clima, PROFEL didn't need to look any further than their long-time meteorological station partner, Davis Instruments. Davis' configuration-friendly hardware allowed PROFEL to scale their nationwide weather network incredibly quickly, using:



VANTAGE PRO2 PLUS WEATHER STATIONS

The Vantage Pro2 Plus provided PROFEL with both the flexibility to measure a wide variety of factors at once and a price point that made scaling the network rapidly achievable.



SOIL TEMPERATURE AND MOISTURE SENSORS

By adding the soil sensor node to the Vantage Pro2, PROFEL was able to provide insights that could further optimize use of water and fertilizer.



DAVIS MOUNTING TRIPODS

The tripods provided PROFEL with a straightforward, consistent installation model that they could use in a variety of different settings to scale quickly.

Clima delivers game-changing insights

At 8,600-acre Five Star Farms, about 100 miles north of Santa Cruz, insights from Clima helped local growers optimize their fungicide deliveries based on authentic data from the field rather than relying on old-fashioned calendar timing. This allowed Five Star Farms to reduce one full round of spraying, leading to cost savings of more than \$113,000 for a single year.



WHY WORK WITH AN AEM PARTNER?

PROFEL SRL, who built the Clima app to increase agricultural and civil weather resilience throughout Bolivia, is just one member of a vast network of international partners and resellers that support the AEM family of brands across the world. AEM brands and our partners empower communities to survive – and even thrive – in the face of today's escalating environmental risks.

If you're wondering what sets AEM, our family of brands, and our partner network apart from the rest of the crowd, it all comes down to three things:

PERSONALIZED WEATHER MONITORING SOLUTIONS

AEM, our family of brands, and our international partner/reseller network are all proud to believe in customer-centric solutions that are scaled to your needs.

WORLD-CLASS HARDWARE & CUTTING-EDGE SOFTWARE

The AEM family of brands has the ideal station, sensor, data logger, or interpretative software platform for any use case, application, deployment, or budget.

LOCAL SUPPORT & EXPERTISE ACROSS THE GLOBE

We don't try to support the whole world from a U.S. office; instead, we maintain a truly global network of configuration, enablement, and support experts.