



Superior insight | Better decisions | Healthier turf

**NEW!**

**POGO Mapper!**

Use for all POGO  
mapping functions  
Page 11



## Knowledge is power.

POGO gives **powerful scientific insight** into property course conditions and trends.

Make **better decisions** to increase your efficiency and optimize water, fertilizer use, IPM and cultural practices.

Present the finest turf conditions possible, with **great confidence, affordably.**



# Nothing gives you this level of analysis and insight (without ever leaving the turf)



POGO Pro+ and add-ons  
(Weather, Mapper, More)



POGO  
TurfPro Mobile

PROPER  
DECISIONS



POGO  
TurfPro Cloud

## POGO Pro+

With patented sensor technology, Pro+ measures the most influential variables impacting turf performance. Never needing calibration and using a complex array of calculations, POGO measures exactly what your turf feels. Unmatched precision and accuracy coupled with Pro GPS on board delivers unique visual insight for best decisions. *Page 4*

## POGO TurfPRO mobile

This powerful iOS/Android mobile application utilizes the POGO TurfPro cloud to instantly link data from POGO hardware and generate analysis and insight that is predictive, appropriate and decisive for an array of applications, all while you're standing on the turf. It seamlessly syncs any number of staff users. *Page 6*

## POGO TurfPRO Cloud

POGO TurfPro analyzes data captured by the app, then presents the results of multiple analyses of your data instantly, automatically and visually. Illustrated information visualizes trends and allows you to see problems forming before symptoms appear—so you can predict and prevent before these become costly. *Page 8*



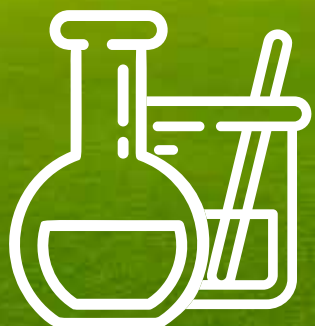
POGO is a professional, all-in-one SYSTEM obtaining superior insight into course conditions, allowing better decisions to be made efficiently and cost effectively for presenting the finest conditions possible.

The POGO system takes a holistic approach to measuring the most influential factors that ultimately determine course quality and turf performance. Its patented technology is unparalleled in precision and accuracy, supported by global research allowing the entire staff to benefit from informed conditions - BEFORE symptoms occur. **SIMPLY PUT POGO is THE Industry Standard in course monitoring and analysis.**



## POGO Weather

POGO Weather is a complete weather system capturing the most pertinent variables associated with ambient conditions. With advanced sunlight monitoring, stress models, degree days and integrated analysis coupling turf AND ambient monitoring into one platform, POGO has set the new standard in understanding all influences on turfgrass performance. *Page 14*



## POGO Lab Analytics

Get insight to chemical and physical qualities of your turf and water systems from our independent, USDA certified laboratory. Know what salts are driving EC. Learn optimal moisture and EC conditions and the complete nutritional make up of your turf system. Understand your complete rootzone profile and water sources and their impact on turf performance, and more. *Page 15*



## POGO Support

24/7 online helpdesk support to all users around the globe



## TurfPro Boost

A **customer favorite**, offers added benefits such as:

- One FREE non-warranty repair or sensor replacement per year
- Discounts on any additional non-warranty repairs
- Significant discounts on future accessories and additional hardware purchases
- Expedited shipping and loaner service if your hardware needs to be returned to the factory for repair (US only)
- Added peace of mind knowing you are never without your POGO system to help you in your daily operations



# In Minutes per Day...

## Precise info for Best Decisions

Only POGO Pro+ simultaneously measures all of the most influential factors that govern turf performance with a patented sensor that needs NO CALIBRATION, not ever! Each is packaged in a durable housing with a multi-day battery pack, professional-grade GPS receiver and Bluetooth for easy communication with your smartphone or tablet.

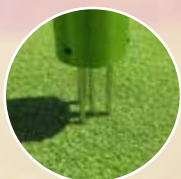
Reliable, durable and built to meet the demands of the Superintendent, POGO experiences low total cost of ownership, no downtime and consistent precision and accuracy.

POGO hardware is part of a complete system that captures, analyzes and provides instant feedback about the holistic condition of your turf, so you can dial in perfection!

### Proven reliability and research-grade precision you can trust

POGO's patented sensor is depended on for scientific-grade precision by the USDA, NOAA, USGS, NASA, and many universities for over 30 years and counting. POGO's sensor is the most heavily researched sensor globally.

## POGO Pro+: A Handheld SIMPLE to USE Supertool!



### Turf remains virtually undisturbed

4 small-diameter, strong, long-lasting marine-grade stainless steel probes (3.1 mm / 1/8 in.) diameter.

### Industry-leading warranty

Under its 2 year warranty, the entire system, even the wearing of the sensor tines (with POGO Boost option) is covered.\*

\* Max. replacement is once per year under POGO Boost. Significantly discounted repairs for all others. Standard 2-year warranty without an active TurfPro Cloud account.

### Rechargeable battery

Provides a WEEK of intense use between charges (18 days standby power). Standard USB-C charging port. Charger included.



### Precisely measures the right depth

The predominant moisture and salinity exchange within the rootzone of all types of turf systems occurs in the top 2.4"\* (~6cm). Measuring this region maximizes true insight into surface influences

\* Agronomy Management Solutions, 2011

### Depth-adjustable soil temperature probe

Easily adjustable from 0 to 6" (15cm). Suggested depth, 2" (5 cm) for most soil temp influences and IPM applications.

### Modular sensor connector

Provides for additional sensor add-ons without the need to replace the Pro+ to measure additional variables.





**MOISTURE**



**SALINITY (EC)**



**CANOPY  
HEAT INDEX**



**SOIL  
TEMPERATURE**



**POGO'S UNIQUE  
SALINITY INDEX**



**PRO-GRADE GPS**

POGO Pro+'s patented sensor measures moisture, EC and salinity index, while two additional sensors measure true heat index on the surface and the soil temperature below. Together, POGO measures the most influential variables governing turf performance. It's the interaction of these 4 parameters which gives the accuracy and precision of POGO's prescriptive solutions.

For instance, low moisture content doesn't necessarily mean water should be applied, or EC is not created equal for all salts. Know what to do and when to do it as POGO gives you the powerful insight you need to do what you love to do - create a great player experience with the finest conditions you can, no matter what your budget may be or what demands are put on you.

The exact location of each sample is recorded with the integrated, professional-grade GPS receiver. It's this location data that allows POGO to show an analysis of the data visually on a map of your course, so you know exactly where you need to focus your efforts and why. Decision-making to apply water, nutrients and cultural practices has never been more precise!

**Infrared turf canopy heat index sensor**

Instantly captures true surface heat index with extreme precision.

**No need for calibration, ever**

Patented sensing technology results in consistent accuracy and precision in all turf and soil types with no maintenance.

**Ergonomic handle**

Detachable and height adjustable for exceptional comfort.



**Integrated wireless**

The best user interface for POGO is the one already in your pocket. POGO connects easily via Bluetooth to any Apple or Android device—no cables.

**Integrated, professional-grade GPS receiver - Makes Analysis SIMPLE**

Adds an extra dimension—precise location—to all measurements for geospatial condition analysis, hole location setup, sprinkler positions and patterns, area measurements, custom mapping and much more.



# Optimal turfgrass performance requires optimal, timely decisions.

The POGO TurfPro Mobile app turns your smartphone or tablet into a data acquisition and logging system that collects, displays and logs turf conditions measured by the bluetooth-enabled wirelessly-connected POGO Pro+ and other POGO hardware linked to TurfPro Cloud.

The app displays real-time analytics and assessments of moisture, EC, salinity, temperature and heat indexes as well as several customizable spec logs (ball speed, firmness, clipping yield and more). This allows for timely reaction to conditions that could otherwise lead to costly problems.

Alerts and notifications advise you of conditions measured that require immediate attention, while you are on the course, and sync'd to as many staff users as you wish.

Easily synchronize collected data with POGO TurfPro Cloud to unleash unprecedented insight and analysis and make it all available to the rest of your team as fast as the data is collected.

## Mobile Reports Delivered in Seconds



Reports containing powerful analyses are created automatically as new data captured with the app are synchronized with POGO TurfPro Cloud. These reports are available to all users on your team in both the app and POGO TurfPro Cloud, within seconds of capturing the data.

Reports like zone trends, visual insight, critical alerts and turf performance reports give you insight otherwise only possible using consultants, reports and research.

Analyze your course's conditions while you are on the turf, so you can make the very best decisions fast... and decisively. Further, by easily sharing conditions, trends and insight with your staff, be confident that best decisions are made always



To use POGO, simply insert the bottom of the POGO Pro+ into the turf then tap the sample button in the app on your smartphone. With each measurement, POGO records the precise location. This permits areas of stress to be pinpointed precisely when the data is analyzed.

Each new moisture, EC, salinity index and temperature measurement (as well as any number of specs you log) is color-coded to clearly display where your conditions are in relation to your customized target range while predicting where conditions are headed. Customizing these settings is simple and allows you to create value

**RIGHT OUT OF THE BOX!**



Once enough measurements for a zone have been recorded, anyone on your team can view the analysis, and make the right decision about what to address and where. An average size green gets in-depth analysis with only 10-15 samples randomly logged in less than 2 minutes.



See your current position and measurements that have been captured in real-time on a real time aerial image of your property. If an up to date image is not available for your property, or if you prefer, you may upload an image of choice to use. More than one image may be used.

Tap to instantly capture a new measurement.

Add a photo or memo to any measurement. For instance, log cut pattern, roll/no roll, hand watering events and more.

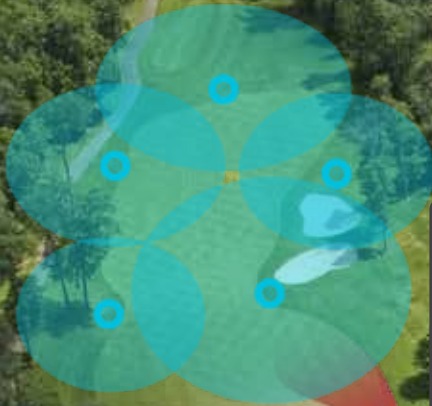
Data and configurations are shared with all other users, allowing a property to be split between multiple people, yet ensuring standardized measurement.



# The POGO TurfPro Cloud\*

## Powering POGO Analytics and Mapping

*\*Annual or monthly subscription with ability to pause subscription in off-season*

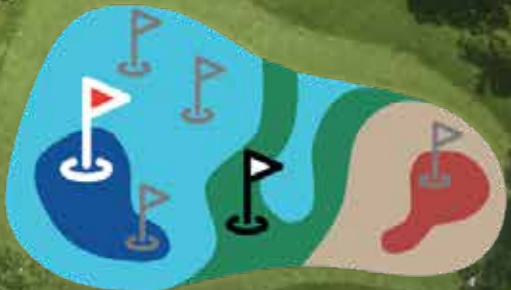


Plot all data captured with a POGO spatially on a real satellite map of your course. Colors are assigned to different ranges, and data is interpreted between samples. See turf conditions for the entire turf zone (Green, FW, etc.) from just a small number of samples. Custom maps or aerial imagery can be used as the basemap platform.

Get a course-wide audit every day in minutes per zone without needing to do a traditional time-consuming distribution uniformity (DU) analysis. DU of moisture and EC for each zone is calculated instantly—a true representation of turf conditions (what's actually penetrating the turf, not just what lands on the surface). Analyze the irrigation system, uniformity of nutrient applications and other variances that would otherwise only be determined with a lot of work during time you don't have, or consultation expenses you can focus elsewhere.

Use POGO's pro-quality GPS to map just about anything on your property. Create your own irrigation as-builts, log IPM actions and pest zones, map individual irrigation and drainage components, and more. Record the exact position of objects including drainage lines, sprinklers, valves, catch basins, irrigation controllers, and many more. Log task incidents, memos, photos and more.

Record pin positions daily and use this information to correlate with the turf conditions measured with POGO to help explain the patterns you're seeing, and plan where future pin positions should go. Set these future positions with the Pin Planner tool, so your selected positions will be shown on the automatically-generated pin sheets. They can be printed or are accessible in real time by the pro shop, members, and staff using a public URL mobile/internet link.



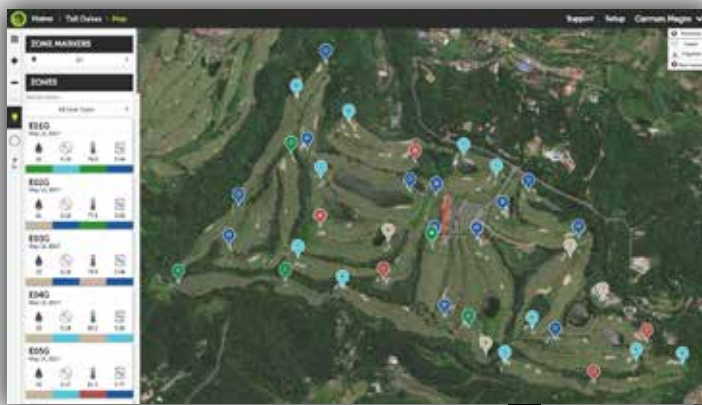


# Visual Insight

Every measurement captured with POGO contains moisture, EC, salinity concentration and temperature influences **PLUS** the precise location from the integrated pro-quality GPS. This allows **POGO TurfPRO Cloud linked to TurfPro Mobile** to plot the data spatially on a real map of your course.

Colors are assigned to different ranges (which you can define precisely). Data is automatically interpreted between locations where measurements were taken, so you'll see turf conditions for the entire turf zone, from just a small number of quick samples.

**You'll make better decisions when you can see WHAT your turf feels, and WHERE.**



**Visual Insight sees problems like black layer forming before you do.**

Trends are visualized, allowing you to see problems forming before symptoms appear so you can react before it becomes costly.

*This is just one practical application of many.*

The POGO system doesn't just record and present the raw data for you to interpret. Because your time is limited, you really want an analysis—What does the data mean? What should you do?

You'll get an enormous amount of insight at a glance, from just minutes a day.

- Hot spot identification for site-specific hand watering
- Nutritional stress identification
- Traffic influences on the turf conditions
- Changing rootzone conditions and influences
- Positive and negative trends from practices you employ
- Before/after analysis of product performance (ex. surfactants, rolling, ball speed changes, more)
- And more



Rather than just presenting raw data for you to interpret, POGO TurfPRO Cloud analyzes your data and presents it **visually, and instantly syncs this info to TurfPro Mobile**. See variations of moisture, salinity, temperature, ball speed, firmness and more across every zone of your course(s), and understand the effects of their interaction. This makes it quick and easy for you, and everyone else on staff to perform Best Management Practices (BMP's) by applying precisely **what, when and where** they're needed.



# Reports...

*From only minutes per day, so much insight right out of the box!*

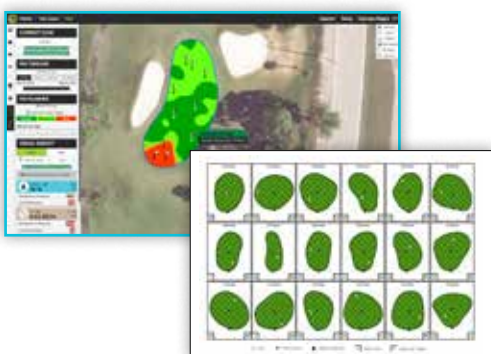
It takes only minutes a day to gather data from your entire course, and each measurement you take includes all of the most influential factors that govern turf performance, plus precise location. This rich set of data can then be put to work to provide further insight into every factor that contributes to turf performance.

## Sample Reports (all accessible seconds after sampling) :



### Trend reports

Plot data for any combination of zones, turf parameters and date range to help identify trends and know how and when to adjust your practices. Have decision-making confidence and predictability. Even trend ball speed, firmness, custom logs and other spec conditions using POGO's spec features.



### Pin planning

Record pin positions daily. Use this information to correlate with turf conditions measured with POGO to help explain the stress patterns you're seeing, and plan where future pin positions should go. Set these future positions with the Pin Planner tool so your selected positions will be shown on the automatically generated pin sheets. Share by URL or print as desired. Know not only pin locations, but understand putting quality perfectly.



### Distribution uniformity

Get a course-wide audit every day in minutes per zone without needing to do a traditional, time-consuming DU analysis. Distribution uniformity (DU) of moisture and EC for each zone is calculated instantly—a true representation of turf conditions (what's actually penetrating the turf, not just what lands on the surface). Use DU to assess aeriifcation, surfactant and many other applications.



### Turf performance indicator (TPI) reports

Insight into multiple conditions on the same scale, giving you a unique turf performance score for your conditions. In addition, it identifies what may be causing the score and even provides suggestions to fix it. Advanced stress models available when combined with POGO Weather (optional add-on, page 14)



# Mapping

Use POGO's precise integrated GPS to map just about anything on your property. Create your own irrigation as-built images, log IPM problem areas, map individual irrigation and drainage components, much more.

Layer any feature or mapped condition or object that you wish.

POGO Turf Pro Mobile makes it easy to record the location and other characteristics of sprinklers, catchbasins, hydrants, drain lines, paths, etc. Simply hold the Pro+ over the object (or walk along the route).



Layer sprinkler patterns over Visual Insight to correlate how sprinkler patterns and traffic flow are contributing to the conditions you measure and see.

## NEW!

### POGO Mapper

Optional add-on to allow mapping/logging without Pro+ in hand



Clips on your belt for operating all POGO mapping + logging functions, using same TurfPro Mobile app and active TurfPro subscription





# SAMPLE, LOG, ANALYZE & MAP.

In minutes a day, view the life pulse of your entire property.

POGO's unique all-in-one design replaces multiple pieces of equipment and software, analysis tools and manual reports. It provides massive efficiency gains and requires minimal training. POGO is the most cost-effective way of gaining this level of course insight, right out of the box!



## SAMPLE.

- Easy: insert POGO into the turf and tap the sample button on your smartphone/tablet, then move to the next location.
- Captures moisture, EC, surface heat index, soil temp and salinity index with its integrated sensor precisely positioned in the most influential component of the turf system.

## LOG.

- Captured data is stored in the app.
- Using integrated GPS, log: sprinkler locations, cup placement, ball speed, boundary (and more) of any zone (greens, fairways, bunkers, ponds, sports fields, etc.)
- Record notes and capture photos. Eliminate paper records and share easily. Retrieve at any time.
- **The simple-to-use, all-in-one system replaces multiple pieces of equipment and manual processes, providing unparalleled efficiency.**

## ANALYZE.

- Instant analysis begins while taking samples, providing the power of decision making in the palm of your hand. More thorough analysis is automatically performed on all data once synced with TurfPro Cloud, integrating back to the app.
- Real-time, clear and accurate irrigation, nutritional and uniformity assessments provide complete understanding of turf and soil conditions, water and fertilizer management optimization and causes of stress.
- **Actionable conclusions to maximize turfgrass health using scientific insight, with minimal effort.**

## MAP.

- Our unique Visual Insight provides detailed analysis of the data you capture automatically, so you never need to wade through numbers or charts.
- Map sprinkler patterns and uniformity assessments.
- Assess area measurements precisely.
- Map features unique to your property...easily.
- Practice more efficient water, nutrient, turf enhancement, and IPM applications by knowing impacts on turfgrass performance at all times. Eliminate guessing and make decisions based on precise conditions.
- **Predict and avoid future problems.**



# Maximize turf performance, minimize water and nutrient requirements, utilize product applications most efficiently.

## OPTIMAL TURF PERFORMANCE

For minimal effort

- **OPTIMIZE** turf health and conditioning, root growth and soil conditions, irrigation distribution and overall turf performance
- **MINIMIZE** water and fertilizer consumption
- **KNOW** the effects of your nutritional and chemical applications. Adjust their timing more effectively
- **IMPROVE** playing conditions and stress tolerance
- **INCREASE** effectiveness of maintenance practices:
  - Validate aerification practices (air/water improvements)
  - Build degree days and POGO performance indicators accurately and specific to your property
  - Optimize nutritional and salinity management practices

## SCIENTIFIC ANALYSIS

Done for you

- **UNDERSTAND** reasons for turf decline: Moisture, nutrients, stress, or the combined impact of moisture, salinity and temperature. Know if a 'dry' spot is hydrophobic or if the discolored condition is the result of elevated salinity or other measured condition
- **MAXIMIZE** nutrient release longevity
- **PREDICT** future stress: Analyze trends to identify negative conditions before symptoms develop
- **MEASURE** the most influential factors for turf performance, above and below ground to make the very best decisions in turfgrass management

## MAXIMIZE EFFICIENCY

Do more in less time

- **AUTOMATE** paperwork and manual notes:
  - Log timestamp and GPS location with every turf sample taken automatically
  - Capture sprinkler and cup positions
  - Record notes and attach photos to each sample and share with users, who are all synced through the cloud
  - Correlate POGO lab analysis reports (turf/soil, water, tissue)
- **ELIMINATE** spreadsheets and manual analysis: let the POGO system do the number crunching with advanced algorithms—just use the map-based Visual Insight to understand, predict and optimize your turfgrass. Make your best decisions with CONFIDENCE



“ POGO has allowed my operation to be uber more efficient in so many ways. We talk about return on investment in all we do for our superiors but often neglect to consider the negative result of not making the best decisions in a timely manner. The cost of having to do something again or recover from a setback is huge! If we gain one more player due to our conditioning efforts, that more than pays for the system...and we have gained many. Losing players is something we wish to avoid entirely. Thank you POGO! ”

Justin Daigle  
Golf Course Superintendent, Perry Park Country Club, Larkspur CO



# POGO Weather

Wireless, autonomous, set-it-and-forget-it insight into the impact of environmental influences on your turf.

Completely battery/solar powered, can be placed anywhere on property. Portable or permanent flexibility.



Adding the POGO Weather station strengthens POGO's *Turf Performance Indicator* score for your property, giving you even greater insight into your overall turf conditions. Using analysis of logged weather conditions, and improving your ability to predict future turf conditions. Compact, affordable and NOAA-certified.

- Measure from anywhere on the property
- Single or multiple station setups
- Maintenance-free, no moving parts
- Customized degree days
- Smartphone accessible
- POGO degree days (in-zone POGO measurements + ambient conditions)
- Ambient Stress Index for easy gauge of overall stress
- Stress indicators
- In combination with turf measurements, POGO weather elevates the POGO system as the only total insight system available giving this level of information

Multiparameter Sensor:  
Wind speed  
Wind direction  
Temperature  
Humidity  
Barometric pressure  
Accumulated precipitation

2 Pyranometers (solar radiation) measures the full spectrum of sunlight and also separates PAR (Photosynthetically Active Radiation) light for additional insight

Solar Panel

Weatherproof Enclosure  
Cellular modem  
Power manager  
12V Battery

Sturdy Aluminum Tripod



# Legacy Hardware

## POGO Pro

The POGO Pro has been replaced by the POGO Pro+ which is designed to allow for expandability into the future.

However, the POGO Pro works well with all new POGO software (app and cloud). If you own a POGO Pro which was originally set up with WiFi connectivity to smartphone devices, you can get it converted to bluetooth to use TurfPro Mobile easily since we no longer support WiFi connectivity.

You can add POGO Pro+ units to your account and have seamless integration with any number of other POGO Pros or Pro+ units.

For more information regarding use of the POGO Pro or updating your equipment, contact us at [info@pogoturfpro.com](mailto:info@pogoturfpro.com)

## POGO mini

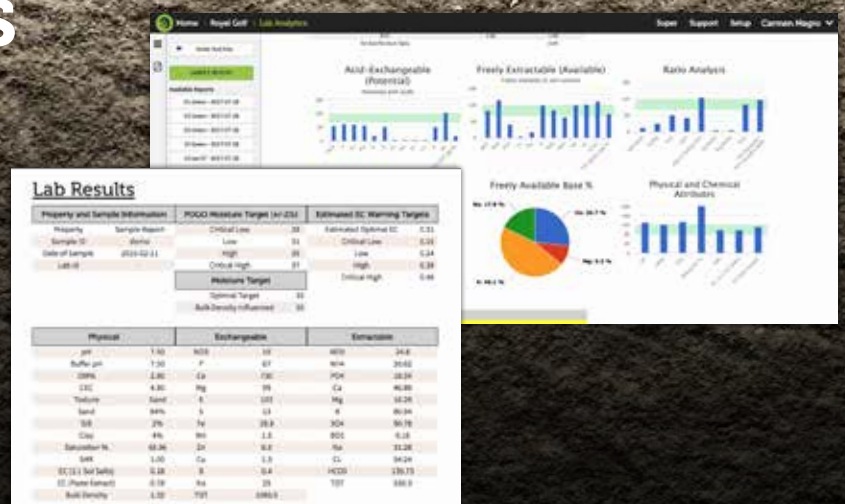
Due to the high demand for the POGO Pro+ and the TurfPro Cloud analytics and mapping system, we have discontinued our POGO mini which was a supplement to the POGO Pro system.

Any customer with a POGO mini who wishes to move to using the POGO Pro+ can inquire about a trade in or credit opportunity to do so at [info@pogoturfpro.com](mailto:info@pogoturfpro.com) or reach out to your local distributor



# POGO Lab Analytics

Using unique lab analytics from POGO's independent USDA-certified laboratory, key attributes are measured to assist you in dialing in POGO warning settings so that POGO's Visual Insight is perfectly set up for your property. Although not necessary for using the POGO system, completing tests for water, turf and soil gives you insight otherwise not possible so that truly 'optimal' conditions can be achieved.





# What your peers are saying:



“ If I move to another golf club, the first thing that I would buy would be another POGO. Or two. Every golf club should have POGO. It has truly set us apart from others in our course conditioning. ”

John Blanch  
General Manager, Thai Country Club, Bangkok, Thailand  
International Club Consultant and Advisor

“ There have been two significant revolutions in golf course management...Primo® and POGO®. ”

Jeremy Adkins  
Senior Director of Agronomy, West Region, ClubCorp, Nevada



“ I have become a huge fan of the POGO. It is easily one of the best value for money investments I have ever made. ”

Sean Kinsley  
Golf Course Superintendent, The Address Montgomerie Dubai

“ The POGO is an incredible tool. I can take samples in the morning and my entire team has instant access to the results in real time on their phones. I have the option to print out the visual map of conditions if necessary so our team knows what to do and where. Awesome! ”

Ken Lochridge  
Golf Course Superintendent, Glen Head Country Club, Long Island, New York



“ POGO provides so much more than managing moisture. When used to its full potential, it's the most valuable product a turf manager can use today. It's precision, accuracy and complete solution system has elevated our practices and knowledge without a doubt! ”

Craig Haldane  
Golf Courses Manager, Gleneagles, The Gleneagles Hotel, Scotland



Superior insight | Better decisions | Healthier turf

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