



TAKEAWAYS FROM SUSTAINABLE TURFGRASS MANAGEMENT IN ASIA 2026

Anna Liza L. Legaspi

The Orchard Golf & Country Club

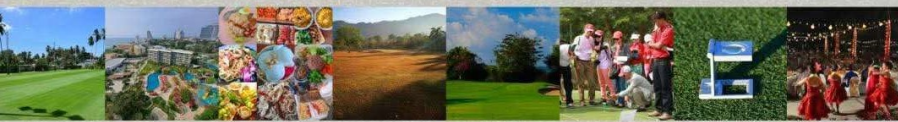
**PHILIPPINE GOLF COURSE
MANAGEMENT CONFERENCE**

THE SUSTAINABLE EDGE:
Elevating Operations to
World-Class Playing Standards

March 9-11 in Pattaya, Thailand



Sustainable Turfgrass Management in Asia 2026



Monday, March 9 @ Amari Pattaya

09:00-12:00, Seminars
12:00-13:00, Lunch
13:00-17:00, Seminars
18:00-21:00, Conference dinner



Ming-Yi Chou, Ph.D.
Assistant Extension Specialist and Professor in Turfgrass Pathology at Rutgers University, speaking about root-infecting fungi and the beneficial soil microbiome.



Rebecca (Becky) Grubbs Bowling, Ph.D.
Assistant Professor and Extension Turfgrass Specialist at the University of Tennessee, delivering instruction on water planning & water use efficiency.



Micah Woods, Ph.D.
President of ATC and PACE Turf, teaching about optimizing putting surfaces and the key physical and chemical properties of sand.

Tuesday, March 10 @ Laem Chabang CC

08:30, Bus departure from Amari Pattaya
09:30-11:30, Field day education sessions
11:30-13:00, Lunch
13:00-17:30, **Golf tournament** and concurrent sponsor education sessions
18:00-20:30, Tournament dinner



James Sua, CGCS
Director of Agronomy at Kuo Hua Golf Club. He will lead a session about autonomous mowers.



Panuwat Nanrum
Golf course superintendent at Suwan Golf & Country Club, with a presentation about "Less coring, more profit."



Phornthawon Phanbut
A Ph.D. candidate at Kasetsart University, she will teach about plant-parasitic & beneficial nematodes on golf courses in Thailand.

Wednesday, March 11 @ Amari Pattaya

09:00-12:00, Seminars
12:00-13:00, Lunch
13:00-16:00, Seminars
16:00, Conference ends

Please join us in Thailand for the next Sustainable Turfgrass Management in Asia conference. The educational program focuses on soil, water, grass types, playing conditions, and sustainability, featuring speakers from six countries.

The registration fee for this three day conference is THB 12,500 (or 9,500 for TGCSA members) and includes ALL educational sessions, 3 lunches, 2 dinners, coffee breaks and snacks, and transport to the field day. In 2026, we will have a golf tournament for the first time! There is an additional fee for those playing golf.

The conference will be held at the Amari Pattaya, with additional rooms available for conference attendees at OZO North Pattaya and at The Pattaya



Hazel P. Manarang
Senior golf course superintendent for Golfforce, Inc.; management tips for 3



Sorawich Pongpiyapaiboon
Ph.D. candidate at University of Miyazaki; digital phenotyping



A system for optimizing condition



PREDICTIVE: Anticipatory Management. Leveraging data to solve problems before they manifest, ensuring peak playing conditions 365 days a year.

CONDITION-BASED: Targeted Precision. Interventions are triggered by real-time turf health and soil metrics to optimize resource use.

PREVENTIVE: Routine Consistency. Scheduled maintenance reduces major breakdowns but may lead to over-servicing.

REACTIVE: Operational 'Firefighting.' Resources are spent responding to failures rather than preventing them.

Data Driven Decisions: Level III *In Action*



PLAYING QUALITY SURFACE

METRICS

Stimp and Firmness

VALUE

- Ensures consistent playing experience



CLIPPING VOLUME ANALYSIS

Yield per m²

- Audits mower performance
- Monitors real-time growth rates



TOTAL ORGANIC MATTER

Soil testing and layering










- Controls water retention

Measure your Clipping Volume...

Metric	Relationship to Clipping Volume	Impact of HIGH Volume
Green Speed	= (Inverse)	↓ Slower Speed
Organic Matter	+ (Direct)	↑ More thatch/Organic Matter
Surface Firmness	= (Inverse)	↓ Softer greens
Sand Requirement	+ (Direct)	↑ More sand needed

↑ Clipping Volume = ↓ Performance (Speed/Firmness) + ↑ Inputs Required(Sand)

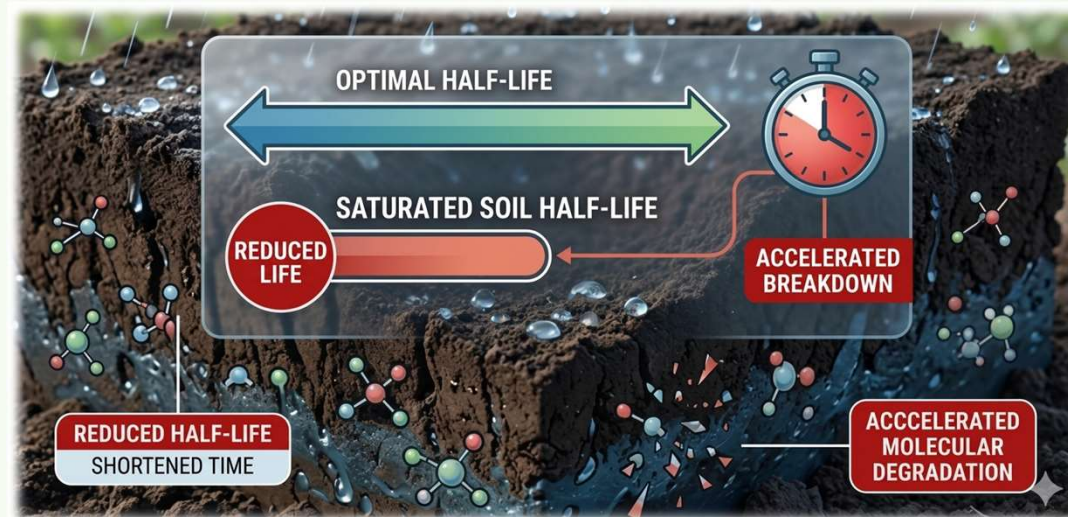
Data Driven Decisions: Level III *In Action*

Indicator	Key Impacts	Impact of HIGH Volume
 High Clipping Volume	 Green Speed  Organic Matter	<ul style="list-style-type: none"> • Reduce Nitrogen rates • Increase PGR applications • Manage moisture (Keep as dry as possible)
 Low Surface Firmness	 Softness / Sponginess  Thatch Accumulation	<ul style="list-style-type: none"> • Increase topdressing sand
 Variable Growth	 Inconsistent Ball Roll  Uneven Playing Surfaces	<ul style="list-style-type: none"> • Group your greens and apply site-specific Nitrogen rates

Water Management: Finding the Balance

Precision **QUANTITY** + **High QUALITY** = Healthy Turf + Lower Costs

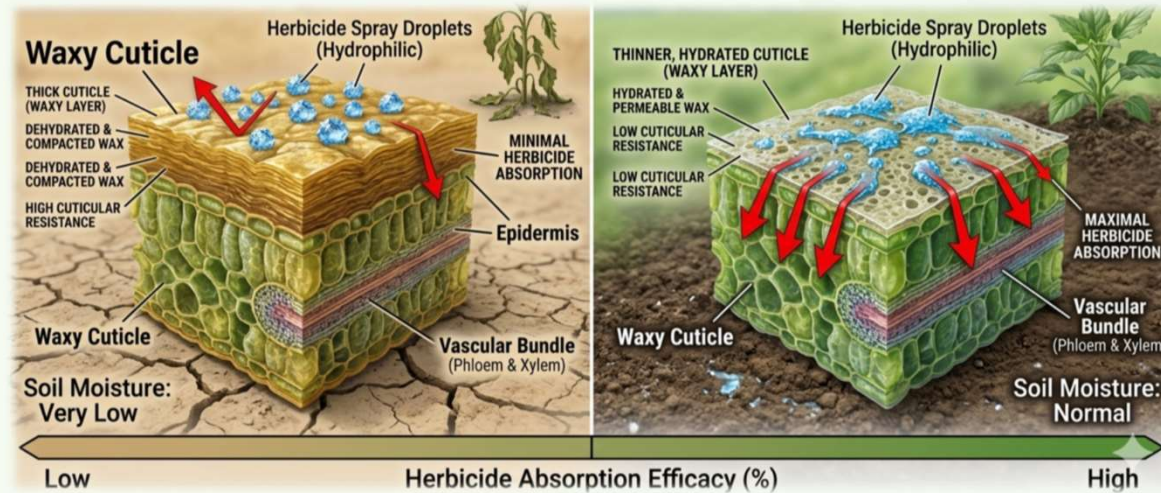
Applying exactly what the plant needs, reducing wasted pumping hours.



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Monitor your salts,
bicarbonates,
and pH

Check salinity
hazard, sodium
adsorption
ratio, specific
ions (B, Cl⁻,
SO₄²⁻, NO₃⁻)

Table 1. Risk thresholds for key water-quality criteria.

	Low Risk	Medium Risk	High Risk	Very High Risk
Salinity Hazard (ECw; dS/m)	<0.75	0.75-1.50	1.50-3.00	>3.00
Sodium Hazard (SAR)	<10	10-18	18-26	>26
Carbonates (CO ₃ ²⁻ ; ppm)	0-120	120-180	180-600	>600
Bicarbonates (HCO ₃ ⁻ ; ppm)	0-15	15-90	90-500	>500

Sources: Ayers & Wescott, 1985; Richards, 1954; Harivandi et al., 1992

Principles for effective and sustainable use of fungicides



Prioritize plant health and cultural practices first



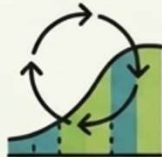
Preventive (or early curative) application

- Time it in between lag phase and exponential growth phase



Know your disease and timing

- Disease calendar



Fungicide selection & rotation



Target minimum input of your fungicide to build resilience

Effects of fungicide on the microbiome



- Microbiome is the community of microbes which dictates soil processes
- Fungicides can eliminate beneficial microbes that provide natural biocontrol.
- Contact fungicide have a greater impact
- **Sweet spot** is within 0.5-0.6g/m²



Data-driven decisions allow us to optimize **every drop of water** and **every gram of product**, creating a world-class surface that works with nature, not against it.



Thank you for listening!