



Swedish
Golf Federation

Datadriven Greenkeeping.

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Swedish
Golf Federation

Datadriven Greenkeeping.

- Sweden & Swedish Golf Federation
- Data collection
- Sustainable golf course management
- Common needs and recommendations
- Digital support system



Sweden.

- Golf Clubs – 445
- Members - 583 000 (+4%)
- Booked tee times - 10 000 000



Agronomists - SGF.





Golf.

Growing environment.

Why data?

- Decision support
- Monitoring
- Understanding
- Follow up – improvement



Why data?

- Only do what is necessary
- Good for playability, the environment and the economy



Course visit – working method

- Interviews on conditions and ambitions (questionnaire)
- Realistic goals
- We review sampling and follow-up as well as logging of daily data



Data collection.

- On-site analysis



- On-site analysis
- Soil profile assessment (SPA)

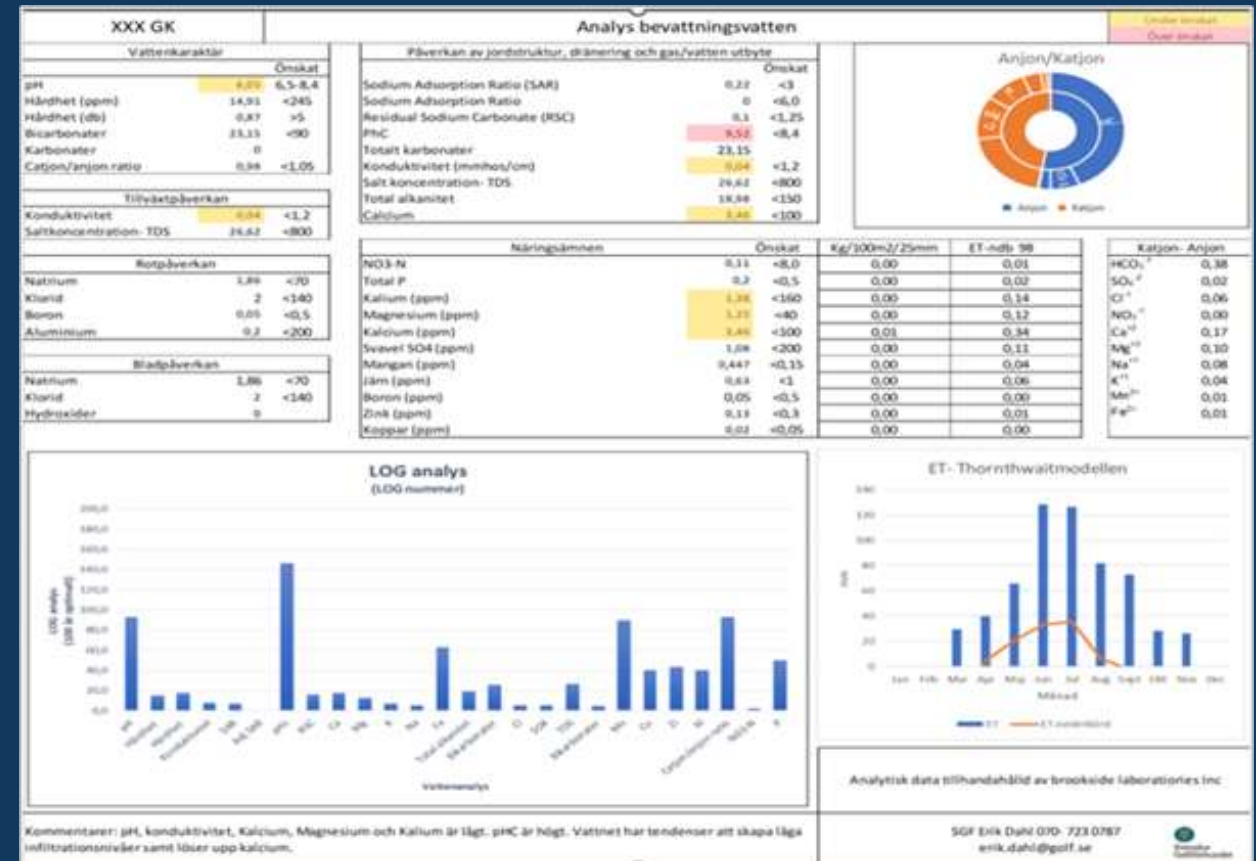


- On-site analysis
- Soil profile assessment (SPA)



Data collection.

- On-site analysis
- Soil profile assessment (SPA)



Data collection.

- On-site analysis
- Soil profile assessment (SPA)
- Daily data collection: clipp volume, weather, moisture levels, inputs, stress, diseases and playability etc



Sustainable golf course management.

- Air in the rootzone
- Base saturation in balance
- Avoid drought stress, mechanical stress & nitrogen stress
- **Nitrogen: distribution and total amount over the year**



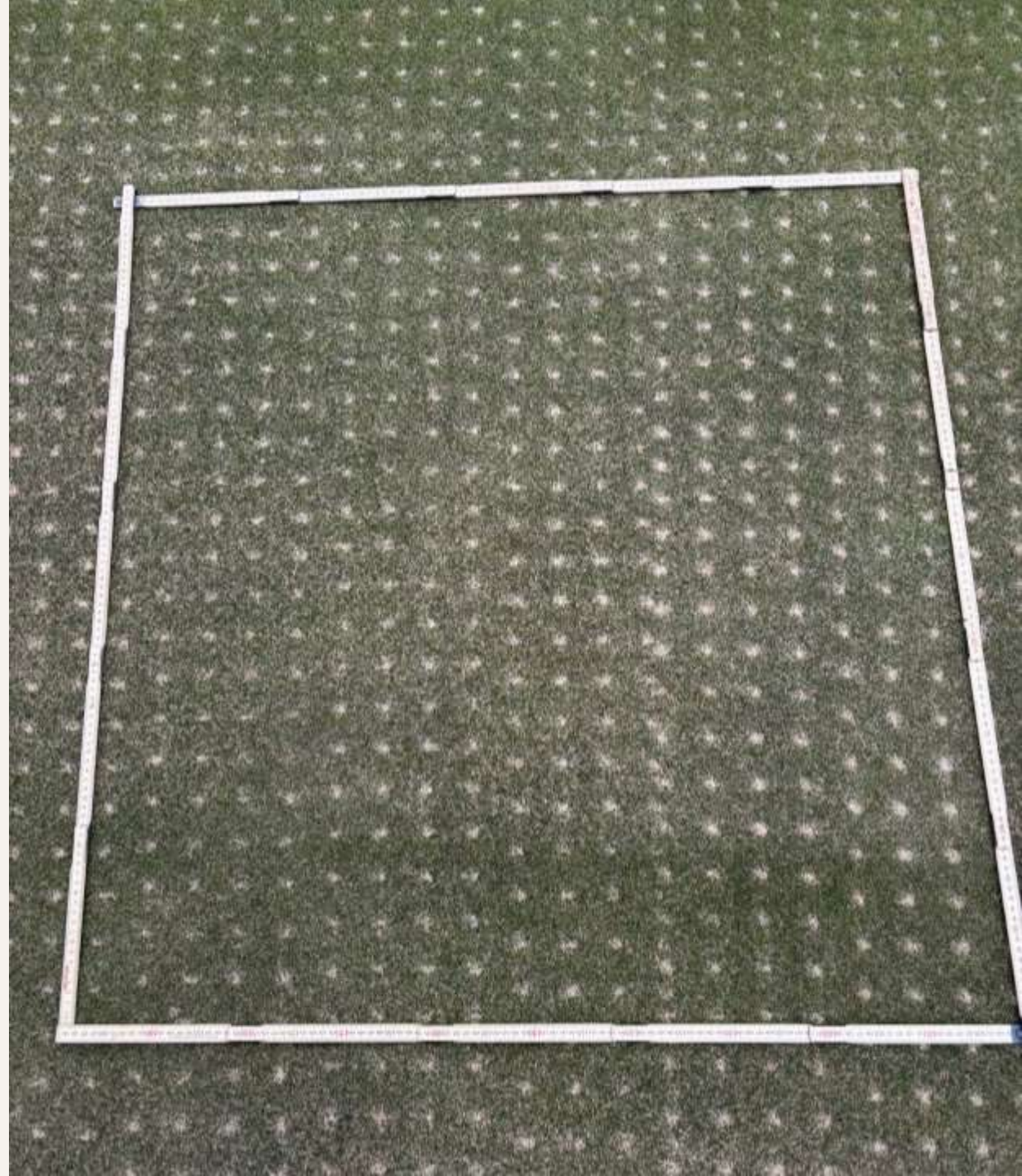
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Practical maintenance.

- Correct nutrients application – (limited need for other nutrients)
- Managing layers and OM – maintaining air pores
- Avoid stress



Digital Support System / Database.

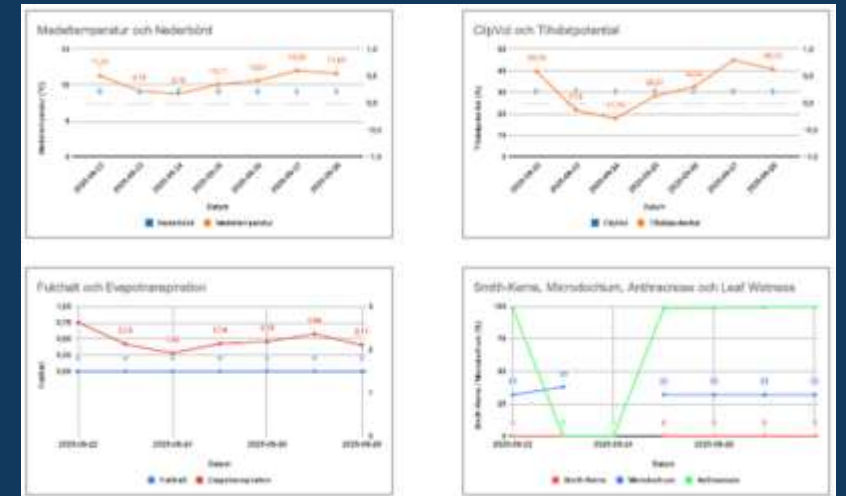
- Under development
- A user-friendly system
- Data (CS+SPA) and interviews
- Daily data



Forecasts, follow-up and statistics.

Examples:

- Growth potential and actual growth
- Nitrogen demand and recommendation for the coming 7 days
- Risk of stress and diseases
- Statistics on playability and growing conditions



Challenges and Opportunities.

- Large data sets often lead to simple and concrete advice
- Technology and AI are relatively straightforward once enough data is collected
- The real challenge: changing behaviors among course managers
- CM must trust the numbers and move away from old routines
- Our key role: coaching and on-site follow-up to ensure lasting change
- Data for research and development

Sustainable golf course management.

- A healthy growing environment is achieved through the right actions at the right time – aeration, topdressing, irrigation, and nutrition.





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