



PRECISION TURFGRASS MANAGEMENT

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Precision turfgrass management uses observations, data, and models to improve management efficiency in turfgrass systems. This course will cover turfgrass growth potential, various turf and pest models, manipulation of growth with nitrogen and PGR programs, clipping volume, crop sensors, mapping data and construction of prescription maps for precision applications with variable rate sprayer systems.

WEEK 1: DATA DRIVES PRECISION TURFGRASS MANAGEMENT

Precision turf management, types of data in turf, visualizing and interpreting data.

WEEK 2: *ALL MODELS ARE WRONG, BUT SOME ARE USEFUL*

Agronomic and weather models, growth rate management, clipping volume discussion.

WEEK 3: WEATHER, WATER, AND SOIL MOISTURE VARIABILITY

Weather sources, stations, networks, APIs, ET, moisture meters, and spatial variability.

WEEK 4: REMOTE SENSING OF STRESS IN TURFGRASS

Multi-spectral data and indices, sensor platforms, distinguishing stress, machine learning.

WEEK 5: GPS, MAPPING AND PRESCRIPTION MAPS

GPS theory and receivers, GPS corrections, GIS software, prescription mapping.

WEEK 6: PRECISION APPLICATION TECHNOLOGY

Drones, variable rate sprayer technology, prescription N fertilizer and disease applications.

GreenKeeper University courses generally consist of two recorded lectures that students can watch at their convenience and then one weekly ZOOM discussion.

THIS COURSE IS OFFERED FROM JAN 10 – FEB 18, 2021