

New GreenKeeper web-app free from UNL

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The Turf Program at UNL is excited to announce the release of our new turfgrass management web-app, GreenKeeper. This website is designed to help professional turfgrass managers keep track of their applications. It is a free service available to managers around the world and we encourage you to try it. Register at www.GreenKeeperApp.com.

Selected Features

- Automatic sprayer math and mixing instructions
- Automatically track PGR GDDs for different areas
- Add custom products that aren't in the public database
- Crowdsource pest reports
- Product efficacy and weather logs
- Ability to add multiple users
- Integration with Twitter



We are working to continue to improve the user experience. We have a list of changes that our developer is currently working on. Some changes include; fertilizer calculation integration, dates of applications on the home page, annual application reports, and increased weather data displays.

The crowdsourced pest maps are also a great way to see what pests are active. For example, we see that people are applying products to control annual bluegrass seed heads in the transition zone right now. Those applications are trending farther north each day. It will be great to see when other pest outbreaks are occurring. Users can also opt out of those reports.

Please try GreenKeeper this growing season. We have put years into the development and hope it helps improve the efficiency of your turfgrass management program.

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Annual Bluegrass seed-head control applications are starting to occur in the transition zone.

The progress northward can be seen via the Pest Outbreak Maps in GreenKeeper

Extension is a Division of the Institute of Agriculture and Natural Resources at the University of Nebraska-Lincoln cooperating with the Counties and the United States Department of Agriculture.

University of Nebraska-Lincoln Extension education programs abide with the nondiscrimination policies of the University of Nebraska-Lincoln and the United States Department of Agriculture.

Frequently Asked Questions:

Will GreenKeeper cost a fee in the future?

We have no plans to ever charge to use GreenKeeper. The development and hosting expenses were covered by the University of Nebraska-Lincoln. Several industry groups have since pledged to help support GreenKeeper into the future. It is important to sustain an active user-base to ensure their support and to drive future development.

I just logged in for the first time but my weather data is blank. Is something wrong?

USA: No, the server will start to log the weather data from the first day you define your ZIP code. It will then log the weather for every day going forward.

Outside USA: We use the US National Weather Service to download the daily weather data. Unfortunately that means that weather data isn't logged for locations outside the USA. This will also prevent the PGR GDD models from advancing once a PGR is applied.

How can I opt-out of automatic pest reporting?

We really encourage users to report which pest they are trying to control when designing a new application. This automatic crowdsourcing information helps us all stay on top of disease, insect, and weed outbreaks. However, a golf course superintendent can opt-out of these maps by simply not defining the target pest when creating a new spray application.

How are fertilizers calculated and logged?

Sprayable fertilizers are currently added to your inventory as a New Custom Product/Fertilizer and then by clicking the "Fertilizer" button in the Product Inventory page. Note, the application rate is in terms of actual fertilizer and not nitrogen (N). For example, if trying to apply 0.25 lbs of N/1000 ft² from sprayable ammonium sulfate (21-0-0), then you would want to add 1.2 lbs of fertilizer/1000ft² (.25/.21=1.19).

Future versions of GreenKeeper will have the ability to track total N, P, and K applied from both spray and granular products. It will also reference changes in soil test values to help with fertilization recommendations. The more people that sign up for GreenKeeper the faster we can start this development.

How are growing degree day (GDD) models for PGRs calculated?

The GDD models were developed at several universities across the country. Initially, they have been optimized for PGRs applied to cool-season greens. We are starting to widen these models to include higher mown cool-season turf areas like fairways and roughs. Finally, we are excited to be working with respected turf weed scientists and plant physiologist to develop models for warm-season turfgrass. When a spray containing a PGR is made, the web-app references the grass species and area (greens vs other) to pick the model parameters best suited to that area.

Warning: The GDD models for warm-season and high mowed cool-season turf (>0.25") have not be optimized to the same level as the models for cool-season greens. Please use GDD models with caution on these areas until the latest research data can be added to the site later this year.

Can I define my own GDD interval?

Yes, GreenKeeper will ask the GDD interval when you add a PGR from the public database to your new application window. It will also state the default interval with will depend on a.i., application rate (when appropriate), species, and management area (greens vs other areas). If left blank, then the site will use the default GDD interval. This feature is still under active development and will be 100% functional in a couple weeks or less.

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Why don't custom PGRs have GDD models?

Only the PGRs in the public pesticide database are linked to the model data. Any PGR that you add will default to a calendar day interval instead of a GDD model interval. Please email me a PGR that you use but isn't in the public database so we can link those products to GDD models. In the meantime, it is easiest to use the public PGR name from the database even if you are using a generic (i.e. select Primo Maxx in GreenKeeper even if you are using a generic trinexapac-ethyl product that isn't in the public PGR database).

Why don't some products have a re-application interval?

Products that don't have an obvious need for a second application, like an insecticide for grub control, will not have a re-application interval. Please let us know if you find a product that should or shouldn't have a re-application interval in the public database.

Another way to force a product to have or not have a re-application interval is to:

- 1) With an interval: Create a custom product that isn't classified as a fertilizer.
- 2) Without an interval: Create a custom product and classify it as a fertilizer to remove the re-application interval box.

Do other groups have access to my course's spray records?

No, it is important that golf course superintendents can trust that their individual spray records remain private. Even I do not have the ability to search for a golf course to pull up their records. We've worked hard to separate your login information (your name, course name, or email) from the spray application information. This adds another level of privacy to the system. Currently, lawyers at the University of Nebraska-Lincoln are developing a privacy statement and user-end agreement, which will be posted to GreenKeeper soon.

Is my email safe?

Yes, I'm the only person that can see your email address. It won't be shared or sold and is not linked to the name of your course name, your location, or spray records. I just have them to help with troubleshooting.

Can I add my own weather-station data to GreenKeeper?

Not at this time but it is something we can investigate if the demand is great enough. National Weather Service temperature data is typically accurate enough for the purposes of GDD tracking. We can see the advantage of site-specific weather station data in the future when adding disease models to GreenKeeper.

I don't work at a golf course but would like to use GreenKeeper. Is that possible?

Yes, just define all the different management areas when setting up your "Course" and call them all rough. For example, city grounds manager may have a hard ball and softball field and multiple parks. Just define those areas all individually and classify them as rough with the appropriate soil-type, area, and predominant grass species.