

Mobile Weed Manual: A New Resource for Turf and Ornamentals

HERBICIDE SELECTION is an important step in effectively managing weeds throughout the landscape. Individuals caring for ornamental plants as well as warm- or cool-season turfgrasses can face unique challenges in selecting herbicides for weed control. Weeds that persist in ornamental areas are often different from those found in turfgrass stands. Additionally, desirable ornamental plants found throughout the landscape can be quite diverse and thus exhibit variable tolerance to herbicide applications. Lastly, many herbicide products labeled for use in turfgrass are not labeled for use in ornamentals and vice-versa. All of these factors make the process of herbicide selection in turf and ornamentals quite challenging.

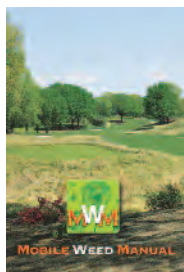


Figure 1 - Mobile Weed Manual (<http://www.mobileweedmanual.com>) is a new turf and ornamental weed control resource.

WHAT IS MOBILE WEED MANUAL?

The University of Tennessee Turf & Ornamental Weed Science Team has developed a new resource to help green industry professionals meet this challenge. Mobile Weed Manual is a new mobile website (www.mobileweedmanual.com); see Figure 1) to assist practitioners selecting herbicides for use in both turfgrass and ornamental areas. The site contains weed control efficacy data and turfgrass and ornamental tolerance information for over 2,300 different species, as well as labels for nearly 100 different herbicides; all of which are optimized to be easily accessible from the palm of one's hand.

HOW DOES MOBILE WEED MANUAL WORK?

Mobile Weed Manual is a mobile website that will work on any mobile device (i.e., smartphone, tablet, etc.) regardless of manufacturer or operating system. The site will also

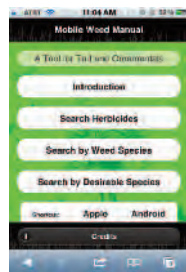


Figure 2 - Mobile Weed Manual provides three options for selecting herbicides.

function on a desktop or laptop computer; however, it was designed for use on devices with touchscreen capability. Mobile Weed Manual offers users three means of selecting herbicides for weed control (Figure 2):

Search by Herbicide. This option is designed for individuals curious about what products are labeled for preemergence (PRE) or postemergence (POST) weed control in either turfgrass or ornamentals, regardless of species. How could this be useful? Select PRE herbicides for turf and the site will populate a list of all active ingredients labeled for PRE weed control in turf. Interested in POST weed control in ornamentals? This function will populate a list of all products labeled for such use.

Search by Desirable Species. This option is designed for individuals curious to know what herbicides are labeled for PRE and POST weed control in or around the specific turf/ornamental species that they manage. For example, this option would allow a lawn care professional to view a list of all the herbicides labeled for PRE weed control in tall fescue turf or determine products labeled for POST weed control in a species of *Liriope*. The opportunities are endless.

Search by Weed Species. This is the most powerful function of Mobile Weed Manual. This function allows user to select herbicides to control a specific weed growing in a particular species of turf or ornamental planting.

The steps are simple (Figure 3):

- Select a use area

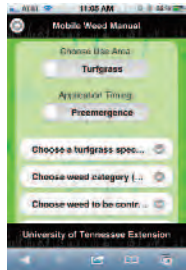


Figure 3 - Search by Weed Species function of Mobile Weed Manual

(i.e., turf or ornamentals)

- Select a type of application (i.e., PRE, POST)
- Select the desirable species (i.e., the type of turf or ornamental planting in which weed control is needed)
- Select the weed type
- Select the specific weed to be controlled.

These steps serve as filters to narrow down the 100 different herbicides and 2300 different plant species to best fit the situation of interest. All of these filters must be completed for the site to function properly and provide correct herbicide recommendations. Users will be alerted in the event they omit required information.

The site will then populate a list of herbicides labeled to control the weed selected. Herbicides are color coded according to the level of control that can be expected by an application made according to label directions (Figure 4).

These rankings are based on the results of research trials conducted at the University of Tennessee. It is important to note that it is impossible to research the efficacy of every herbicide for control of every weed that could possibly invade a landscape. Thus, herbicides coded gray are labeled for control of the weed selected but have not been evaluated in research trials at the University of Tennessee.

Within each color code, herbicides appear in alphabetical order by trade name.

Users can select a particular product from the list to access additional information about how to best use this herbicide for weed management (Figure 5). Mobile Weed Manual will populate a page that provides users information on the full

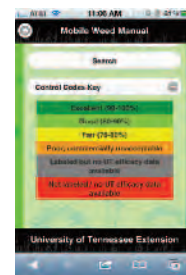


Figure 4 - Color-coding of herbicides corresponds to expected levels of control



Figure 5 - List of herbicides populated from a Mobile Weed Manual search.

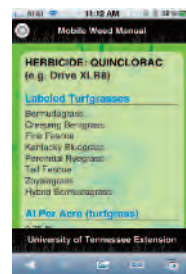


Figure 6 - Additional information on a particular herbicide

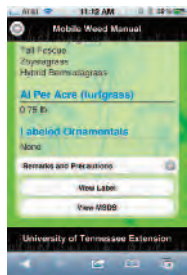


Figure 7 - Links to herbicide label and MSDS information

array of turf and ornamental species listed on the product label, suggested application rates, and remarks and precautions to adhere to before applying the product (Figure 6). Lastly, this page will contain links to each product's label and material safety data sheet (Figure 7). It is always the herbicide applicator's responsibility, by law, to read and follow all current label directions for the specific herbicide being used.

HOW TO ACCESS MOBILE WEED MANUAL

Simply visit www.mobileweedmanual.com using the internet browser on any mobile device. It is recommended that individuals bookmark the site and create a shortcut to it on their home screen (Figure 8).

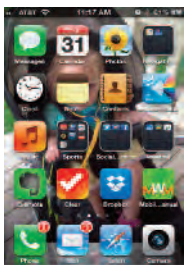


Figure 8 - Mobile Weed Manual shortcut on the bottom right-hand side of the home screen on an iPhone.

There are directions on the Mobile Weed Manual home page to guide users through this simple process. Creating a shortcut on the home screen will facilitate faster access to Mobile Weed Manual content in the future.

At the current time Mobile Weed Manual is a free resource. Should users find value in the content provided, they can donate funding (in an amount of their choosing) to support continued development of this new weed control resource. Donations can be made by selecting the "Support" button on the Mobile Weed Manual main page (Figure 9).

The University of Tennessee Turf & Ornamental Weed Science Team hopes that Mobile Weed Manual becomes a valuable tool for all green industry professionals managing weeds. The site will be updated continually to expand the database of turf, ornamental, and weed species information, as well as to include information on new herbicides entering the marketplace.

Since debuting online in May 2013, the site has been used by individuals managing turf and ornamentals in all 50 United States and 44 countries worldwide. Our hope is that Mobile Weed Manual use expands even further in the future.

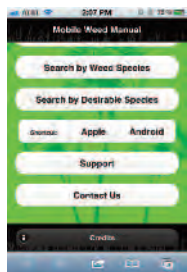


Figure 9 - Support link for users interested in donating funding to support continued development of Mobile Weed Manual.

Please send any questions, concerns, or comments on Mobile Weed Manual to info@mobileweedmanual.com. Also be sure to stay in touch with the University of Tennessee Turf & Ornamental Weed Science Team at <http://tennesseeturfgrassweeds.org> ■

www.stma.org

Tools & Equipment

FUTURE TURF MANAGERS EVENT PREPARES STUDENTS FOR SUCCESSFUL FUTURE

Last month Jacobsen hosted more than 20 college seniors from top turfgrass programs around the world as part of its annual Future Turf Managers event.

The annual event gives students a unique opportunity to experience professional turfgrass management at the highest level. During the 3-day event, students visit with top sports field managers and golf course superintendents, hear leading-edge presentations from top universities and get an insider's look at Jacobsen's turf maintenance equipment.

Attendees must be recommended by directors or professors at turfgrass programs. Students were selected from more than 20 colleges and universities, including Penn State University, Texas A&M University, Mississippi State University, Iowa State University and North Dakota State University. The group also included an international student from Myerscough College in Lancashire, England.

Jacobsen University hosted several educational sessions, which included a presentation from Abby McNeal, CSFM, Director of Turf Management at Wake Forest University. McNeal gave the group an overview of the Sports Turf Managers Association and shared some advice about ongoing training and player expectations.

"I've always been told not to be afraid to take the ground balls," said McNeal. "Take basic courses to keep your skills sharp like fertilizer calculation or machine calibration. It's amazing how much you forget over the years."

"Joe DiMaggio once said that every game there could be a kid who's seeing him for the first or last time and he owed it to them to give his best," McNeal told the group. "It's the same with our profession: every game you prepare for is the most important of the season, whether its Pop Warner football or an NFL playoff game."

The group also heard from Dr. Jim Brosnan of the University of Tennessee, who gave a presentation on herbicide resistance. Research has shown that herbicide resistance is being perpetuated by turf managers who use the same modes of action, year after year.

"Some of the guys I talk to out there are using the same herbicides in the same way for years," Brosnan told the group. "And they wonder why their grass is resistant to herbicide. The key is rotating your modes of action to avoid resistance."

One of the highlights of the week included a visit to the University of South Carolina (USC), home of the back-to-back College World Series champions in NCAA Division I men's baseball. USC Sports Turf Manager Clark Cox gave students an exclusive look behind-the-scenes at the school's state-of-the-art sports complex. Cox also shared his experiences and challenges of managing turfgrass in the transition zone.

Reflecting on the event, students said their experiences will better prepare them for their job search and future careers.

"This event made me more confident about finding a job and better prepared for the work that lies ahead," said Robert Glenn, graduating senior at Mississippi State University. "Plus, the fact that I have contacts at two upper echelon sports facilities extends my networking reach even further."

It was also encouraging is how positive the recent graduates are about job opportunities.

"I'm not really worried about getting a job," said Derek Christensen, graduating senior at North Dakota State University. "The last 3 years, all the turfgrass graduates from our school found jobs right away. I think this week has put me in a great mindset to begin my job search." ■



▲ **Top: ABBY MCNEAL**, CSFM, Director of Turf Management at Wake Forest University, gives the group an overview of the STMA and shares some advice about ongoing training and player expectations.

Bottom: CLARK COX, CSFM, University of South Carolina Sports Turf Manager, shares his experiences and challenges of managing turfgrass in the transition zone.