

**06 HERBICIDE** Resistant Weeds

fall 2019 / www.ohiolawncare.org

# OCANEWS it pays to be green



MARK YOUR CALENDAR! A GRATEFUL EMBRACE Dayton National Cemetery, Dayton, OH

On November 2, OLCA will host Grateful Embrace. Volunteers can sign up to partake in this annual community service of beautifying the grounds of the Dayton National Cemetery in Dayton and the Western Reserve Cemetery in Rittman.

Sponsors include the Ohio Turfgrass Foundation and the Ohio Nursery & Landscape Association. This event is our industry's way of giving back to those who gave all.

You can register online by visiting the OLCA website at www.OLCA.org or contact OLCA at lori@bennett-management-llc.com. We hope you can participate.

## FROM YOUR PRESIDENT, Joel Smith, Greentech



Fall is finally here, although for a lot of the state it still feels like summer. In the lawn care industry, there seems to be one thing that

stays the same: the weather is always changing and unpredictable. With that said, in a given year, we will have "too much rain, not enough rain, too hot, too cool, too much sun, not enough sun" all within a 8-9 month period. So, rest assured your neighbors and competitors are all in the same "boat" (certainly could have used one this spring) and we all do our best to keep turf healthy.

I want to thank you all for being a member of OLCA and encourage you to take advantage of our upcoming marketing seminar on November 18 where we will provide you with ideas on how to grow your business and stay successful. We invite all lawn care and landscape professionals to join us on Saturday, November 2 at the Dayton National Cemetery in Dayton or the Ohio Western Reserve Cemetery in Rittman for A Grateful Embrace. Show your support to our soldiers and veterans by giving back to those who gave all. Lastly, we will be having our annual meeting Wednesday December 4 at Callahan's Columbus.

Have a great rest of your fall and as always let us know if there is any way we can better serve you.

## FROM YOUR EXECUTIVE DIRECTOR, Mark Bennett, CAE, IOM



We appreciate your continued support of the Ohio Lawn Care Association (OLCA) in 2019. We had strong attendance once again at OLCA's field days in Wooster and Columbus. As the weather begins to cool and your season begins to slow, know that OLCA continues to strive to help you protect and grow your business.

The Grateful Embrace on Saturday, November 2 in Dayton and Rittman to help winterize the grounds of two veterans' cemeteries celebrated its 26th anniversary. Since 1994, OLCA, through its generous membership, has devoted countless volunteer hours and materials to the task of working on the hallowed grounds these cemeteries. This annual event on Veterans Day weekend, led by OLCA and sponsored by the Ohio Turfgrass Foundation, and the Ohio Nursery & Landscape Association, is a wonderful opportunity for the lawn care industry to give back to those who gave all.

For you lawn care company owners and operators, OLCA will host a Marketing Seminar, sponsored by Real Green, on November 18 at the Embassy Suites in Dublin, Ohio. This seminar will have a host of topics to get you ready for your 2020 season including marketing to multigenerational consumers, saving a customer before they cancel, taking a deeper dive on employee liability and more. Plan to join us and grow your business!

OLCA will hold its annual meeting at the Ohio Turfgrass Foundation Conference & Show on December 4. Everyone seemed to enjoy the new format of last year's annual meeting, so we'll be keeping the same format this year. Plan to join us as we host a happy hour at Novak's Tavern. Watch for additional information coming soon. This is your opportunity to have a pint on us and hear about what your industry's association has done in the past year to help strengthen your lawn care business.

OLCA membership renewals will be mailing soon. Be sure to renew your membership to take advantage of all of the great benefits OLCA has to offer. For just \$125 for the year, your entire company can join OLCA. The average OLCA member saves more than \$2,000 annually on its workers compensation premium. That's a more than \$15 return on investment for every dollar you spend on OLCA membership dues! Additionally, OLCA offers its members additional discounts on lead generation, plant/pest diagnostics and soil sample analysis. We also have a number of short videos from Ohio State's turf faculty speaking on subjects such as rust disease, effective use of fungicide, fertilizer programs, crabgrass control and more! Visit the website or call the office for additional information on any of these member benefits. Taking advantage of these benefits can significantly boost your company's bottom line.

OLCA continues to promote the legislative interests of its membership through its active participation in the Ohio Professional Applicators for Responsible Regulation (OPARR). This ensures your ability to effectively service your customers with the appropriate fertilizers and pesticides. I participate in quarterly OPARR Board meetings on behalf of OLCA. We not only discuss potential legislation which may affect fertilizer and pesticide applicators, but we invite members of the Ohio General Assembly to speak to the group building further relationships.

If you have any questions or comments, please feel free to contact me at 800-510-5296 or mark@bennett-management-llc.com.

## **OHIO LAWN CARE FIELD DAY QUIZZES**

Congratulations to all the winners!

New this year, the OLCA Board conducted a quiz for technicians during both Field Days to test their knowledge during the Station rotations. The quiz is a replacement of the Lawn Care Technician and proved to be a success.

Winners from the June Field Day Quiz were first place Kolton Oiler of Turf Pride Lawncare, LLC, Painesville; second place Keith Grankauskas of Turf Pride & Lawncare, LLC, Painesville and third place Dwight Shoup of Shoup's Lawn Care, LTD, Dundee. Winners from the August Field Day Quiz were first place Jack Babet of Forevergreen Lawn Care, Inc., Elyria; second place Walter Lane of Forevergreen Lawn Care, Inc., Elyria and third place Nate Wickenmeyer of Oasis Turf & Tree, Loveland.



June Winners



August Winners

## ULCA 2019 ANNUA MEETING

Wednesday, December 4, 2019 5:30 pm-7:30 pm Callahan's Columbus 520 Park Street, Columbus, Ohio 43215

You are invited to attend the 2019 OLCA Annual Meeting to celebrate a successful year and what is changing at your association. Register Online or email info@ohiolawncare.org.

## OLCA SUMMER SEMINARS WERE A SUCCESS

OLCA held the 17th Annual Northeast Ohio Lawn Care Seminar on June 13 at The Ohio State University/OARDC The Arden Shisler Center in Wooster with over 100 attendees receiving 0.5 credit hours in Category 8; 3.0 credit hours in Core, 1.0 credit hour in Category 10D and 1.0 credit hour in Category 6A.

The 25th Annual Ohio Lawn Care Outdoor Summer Seminar took place on August 7 at The Ohio Turfgrass Foundation Research & Education Facility in Columbus with 194 attendees receiving 1.50 credit hours in Category 8; 1.0 credit hours of Core, 1.0 credit hour in Category 10A, 1.0 credit hour in Category 5 and 1.0 credit hour in Category 6A.

These events were sponsored by Real Green Systems, Turfware, Advanced Turf Solutions, Nufarm and Syngenta. Thank you for your continued support!



## Ohio Lawn Care Association 2020 Sponsorship Program

#### Company Name

Main Contact: Name

#### **Gold Level Sponsorship** - **PRICE = \$1,299** (more than 25% savings)

Includes:

- Full Page Ad (black & white or color) in 2 newsletters (\$300 value)
- 5 minutes upfront face time with attendees at both field days and annual meeting to promote company and new products (\$100 value)
- Event Sponsor of both Field Days. Sponsorship includes logo placement on promotional materials, signage, handouts and equipment/product display space (\$600 value)
- Main Sponsor for podcast.
- Complimentary Registration to both Summer Seminars (\$80 value)
- Annual Meeting Sponsor Includes table display space (\$125 value)
- Website logo and link to sponsor site (\$500 value)
- One-year Supplier Membership (\$150 value)

#### **Silver Level Sponsorship** - **PRICE = \$999** (more than 30% savings)

Includes:

- Half Page Ad (black & white or color) in 2 newsletters (\$150 value)
- Event Sponsor of both Field Days. Sponsorship includes logo placement on promotional materials, signage, handouts, 5 minutes to talk about your product at lunch and equipment demonstration space (\$600 value)
- Complimentary Registration to 2 Summer Seminars (\$80 value)
- Annual Meeting Sponsors Includes table display space (\$125 value)
- Website logo and link to sponsor site (\$500 value)
- One-year Supplier Membership (\$150 value)

#### **Bronze Level Sponsorship** - **PRICE = \$650** (more than 40% savings)

Includes:

- Event Sponsor of both Field Days. Sponsorship includes logo placement on promotional materials, signage, handouts, 5 minutes to talk about your product at lunch and equipment demonstration space (\$600 value)
- Annual Meeting Sponsors Includes table display space (\$125 value)
- Website logo and link to sponsor site (\$500 value)
- One-year Supplier Membership (\$150 value)

#### To confirm your participation as a 2020 OLCA sponsor, please check the appropriate box above and return to:

#### OLCA 305 W Nationwide Blvd Columbus, OH 43215 Phone: 800-510-5296 www.OhioLawnCare.org

#### PAYMENT:

□ Check (Make check payable to **OLCA**)

To pay by credit card, please visit <u>www.OhioLawnCare.org</u> and *Sign In* (located in the upper right corner). OLCA currently accepts the following credit cards: Discover, MasterCard and VISA. OLCA is unable to accept credit cards by phone, fax or by mail.

If you do not remember your Username or Password, use the <u>Reset Your</u> <u>Password</u> on the OLCA web site by entering the email address associated with your member record. Please contact the OLCA office at 800-510-5296 if you have any questions or have trouble logging in. We appreciate your support of the Ohio Lawn Care Association.

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### GRATEFUL EMBRACE November 2, 2019 Dayton National Cemetery, Dayton, Ohio The Ohio Western Reserve Cemetery, Rittman, Ohio

We invite all lawn care and landscape professionals to join us on Saturday, November 2 at the Dayton National Cemetery in Dayton and/or Ohio Western Reserve Cemetery in Rittman for "A Grateful Embrace". Show your support to our soldiers and veterans by giving back to those who gave all. Please fill out the form below and email it to lori@bennett-management-llc.com by October 30.

Here is a brief summary of the day's events:

- Arrival and check in times for each event will be 7:45 am
- Donuts and coffee will be served and you will be assigned your area.
- We will have a short ceremony at 8:30 am at each venue capturing the spirit and humbleness of the event that includes guest speakers, Honor Guard and Benediction.
- Work commences at the conclusion of the ceremony
- Most of the materials (fertilizer) will be provided through the generous donations of our industry suppliers.

However, we are asking that those who can donate 5 bags of fertilizer to the cause.

- You'll need to bring spreaders, blowers and all the manpower you can muster to help us get 160 acres of turf fertilized on that day.
- Lunch is also provided!

Don't miss out on this unique opportunity to honor those men, women and their families, both living and deceased, who provided the ultimate sacrifice that we might remain a free nation.

We promise that after participating in the Grateful Embrace, you will never be the same again – just ask anyone that has participated in this event!

NAME:	COMPANY:			
ADDRESS:				
PHONE:	EMAIL:			
LOCATION:DAYTO	NRITTMAN NUMBER OF PEOPLE ATTENDING:			
EQUIPMENT YOU CAN BRING:				
(Spreaders, Blowers, Ride	-ons, Brooms, etc.)			

### HERBICIDE RESISTANT WEEDS

Portions of this article originally published in Sportsfield Management Magazine

Herbicides are an effective tool for the control of most weeds that we see in turfgrass. But, the turfgrass management environment is unique compared to row crop agriculture in that our goal is to maintain a high quality aesthetically pleasing and functional surface over a period of many years. This being the case, some of the tools used in row crop agriculture to control weeds are not practical or possible for turfgrass management, for example regular tillage. Given the way that turfgrass is managed, herbicides are our primary and usually only option. Herbicide resistance, long a problem in production agriculture, is an issue that is becoming more frequently reported in turfgrass. While not widespread at this time, it has the potential to become one of the significant challenges turfgrass managers will face in coming years.

Some of the herbicides that we use today have been around since the mid 1940's. At this time there are relatively few new herbicide chemistries being developed for the turfgrass market. The development of resistance to herbicides by weeds is not at all a new phenomenon, with cases being reported as early as 1970. The severity of this issue in turfgrass seems to vary depending on the target weed species, and it seems, location. Herbicide resistance issues in turfgrass were first reported in the southern United States. It has relatively more recently been reported in cool season turfgrass and is not yet as serious of a problem. By taking steps now to understand the issue we can perhaps help to prevent and/or delay herbicide resistance becoming a serious issue in cool season turfgrass.

#### What weeds are Resistant and where is this Observed?

The first reported instance of herbicide resistance was in 1970 when it was observed that the herbicide simazine was no longer controlling groundsel when used in nurseries in the state of Washington. By the first part of this decade the number of weed species that have been found to be resistant to at least one family of herbicides exceeded 200 and a few of these species are important weeds in turfgrass management (Figure 1). Goosegrass (Eleusine indica) was one of the first turfgrass weeds in which herbicide resistance was documented when it was found that the dinitroanaline herbicides were no longer providing control. Annual bluegrass has shown resistance to the warm season turf herbicides foramsulfuron, trifloxysulfuron, imazaquin, simazine, atrazine; the nonselective herbicide glyphosate; and the cool season turf herbicides bispyribac, benefin, pendimethalin and prodiamine. Resistance in these species has been known for a long time and management recommendations for herbicides have been altered accordingly. For example, oxadiazon is now more often recommended as a preemergence control for goosegrass. Aaron Patton, a weed scientist at Purdue University, has documented or is studying resistance development in the following weeds: smooth crabgrass (to quinclorac), buckhorn plantain (to 2,4-D), ground ivy (to synthetic auxin herbicides). Again, it is important to note that these occurrences are not yet widespread but we are seeing cases of suspected weed resistance reported with increasing frequency.

A common misconception is that weeds acquire resistance to a particular herbicide. This is not the right way of describing the phenomenon. As with all living things there is genetic variability within a population. Some species have more genetic variability than others but all have it. Because of this, a population that is normally susceptible to a particular type of herbicide will have individuals that have the ability to tolerate and therefore not be killed by the herbicide. If this resistant individual is allowed to complete its life cycle and reproduce then its offspring will also have the trait that allows it to resist that particular type of herbicide. If the same herbicide that is no longer effective is used over and over again then the population of resistant weeds will grow and can eventually become the majority. The resistant weeds can then be spread by wind, equipment and all of the other normal ways that weeds are spread.

#### How to Reduce the Risk of Herbicide Resistance

First and foremost, in cases of documented resistance to herbicides, rate very quickly becomes a non-factor. In other words, if you have a weed that is resistant, doubling or tripling the rate of the product and reapplying will tend to not be effective. Indeed where resistance is documented, resistance to up to 100x rates has been reported by turfgrass scientists.

The best and most effective method to reduce the risk of a weed population acquiring resistance to a class of herbicides is to not use the same product year after year but rather to rotate among the different herbicidal modes of action that are available. The reason for this is that if a weed population develops resistance to a particular type of herbicide, there is a good chance that it will resist all other herbicides that work the same way. This presents some practical challenges for managers who maintain cools season turfgrass. One of the challenges is mental. That is, many turfgrass managers use "this" herbicide in order to control "that" weed because they know that it works (or that it has been working). Since most turfgrass managers are paid to, among other things, produce a high quality aesthetically pleasing playing surface, rotating away from a product that is desirable, either because

of its economics or its performance to another product in order to help reduce the potential development of a problem that is real but may not be obvious yet can be a hard argument. But, just like with fungicides, turfgrass managers are going to need to learn and pay attention to the different modes of action of the herbicides.

There is an excellent extension bulletin available from the University of Florida that categorizes all herbicides available for both cool and warm season turfgrass. The bulletin is SS-AGR-394 and it can be found at http://edis. ifas.ufl.edu. Another challenge for cool season turfgrass managers is that, compared to production agriculture or even warm season turfgrass, there are not a lot of practical rotation options available for cool season turfgrass managers. Table 1 lists only the preemergence herbicides available for cool season turfgrass managers.

continued on page 8











**Annual Bluegrass** 

Goosegrass

**Smooth Crabgrass** 

**Buckhorn Plantain** 

**Ground Ivy** 

Table 1. Classification of preemergence herbicides registered for use in cool season turfgrass according to both the Herbicide Resistance Action Committee (HRAC) and the Mechanisms of action codes according to the Weed Science Society of America (WSSA). A proper herbicide rotation involves changing between not just products or chemical classes, but modes of action.

HRAC (WSSA) CODE AND MODE OF ACTION	CHEMICAL CLASS	COMMON NAME	EXAMPLE TRADE NAME
C2(7) Photosystem II inhibitors	Substituted Urea	Siduron	Tupersan
E(14) Protoporphyrinogen Oxidase (PPO or Protox) inhibitor	Oxadiazole	Oxadiazon	Chipco Ronstar
K3(15) Mitosis inhibitor K1(3) Mitosis inhibitors	Chloracetamide Dinitroaniline Dinitroaniline Dinitroaniline Pyridine	Dimethenamid-p Benefin Pendimethalin Prodiamine Dithiopyr	Tower Balan, LESCO Benefin 2.5G Pendulum, LESCO Pre-M Barricade Dimension
L(21) Cellulose inhibitors	Benzamide	lsoxaben	Gallery
N(8) Fatty acid and lipid biosynthesis inhibitors N(16) Fatty acid and lipid biosynthesis inhibitors	Phosphorodithioate Benzofurane	Bensulide Ethofumasate	Betasan, Bensumec, Lescosan Prograss

Table 2 lists herbicides for postemergence control of grassy weeds and sedges and Table 3 lists the herbicides available for cool season turfgrass managers for postemergence control of broadleaf weeds.

The tables are organized according to how the herbicides work to control weeds, often referred to as their Mode of Action (or MOA). Two different classification systems have been developed to categorize herbicides by their modes of action. One of these was developed by the Herbicide Resistance Action Committee (HRAC) and the other by the Weed Science Society of America (WSSA). The tables report the modes of action of the herbicides according to both of these classification systems. So, for example, the herbicide siduron at the top of table 1 was categorized as a C2 herbicide by the HRAC and as a category 7 herbicide by the WSSA. That there are two different classification systems being widely used may cause some confusion. However, the important thing is that with both systems there is general agreement on how the herbicides should be categorized according to their modes of action. So, for example, siduron is a substituted urea class herbicide that works in plants by inhibiting photosystem II. It has a different mode of action than the dinitroanaline herbicide benefin, which inhibits mitosis.

For ease of interpretation, herbicides with the same mode of action within a table have the same colored background on the table. Most pesticide manufacturers now include at the top of their label a box with the WSSA code in order help turfgrass managers easily identify what type of herbicide they are using.

Proper rotation involves using herbicides with a different MOA (or colored background on the table) for each application. For example, if the objective is to avoid resistance development in crabgrass then rotating between benefin and prodiamine is not effective because both are dinitroanaline herbicides. It is also not effective to rotate between a dinitroanaline herbicide and the herbicide dithiopyr.

Dithiopyr is in a different chemical class (it's a pyridine) but both the pyridines and the dinitroanalines have the same mode of action. Looking at the other preemergence herbicides in Table 1 that are effective for crabgrass control reveals that our options for an herbicide to rotate with the mitosis inhibitors include just siduron (which is used more at seeding time) or bensulide.

A strategy to help deal with this is to incorporate the use of postemergence herbicides into the management plan and to also rotate among these chemistries. So, for example, the use of fenoxaprop one year followed by quinclorac in year 2 and then either topramazone or mesotrione (different chemical classes but same mode of action) for year 3.

I mentioned that if a weed population acquires resistance to one herbicide then it probably will resist all herbicides that work the same. With goosegrass there is an exception in that dimethenamid-p is labelled for control, even though it is a mitosis inhibitor. However, dimethenamid-p is a different type of mitosis inhibitor according to both classification systems.

For the broadleaf herbicides, if the target is an annual weed then a preemergence herbicide may be useful. Pendimethalin or prodiamine or dithiopyr in year 1 followed by bensulide in year 2 may effectively control many of our summer annual broadleaf weeds. Another option may be to rotate to isoxaben, depending on the target weed. When rotating, of course you need to make sure that the target weed is on the label. For perennial broadleaf weeds, if you examine Table 3, knowing that weed resistance is becoming a serious issue, you could say we have been very fortunate in turfgrass because for a very long time our postemergence herbicides were all synthetic auxins. The registrations (all since the year 2000) of the PPO inhibitors and the ALS inhibitors have provided cool season turfgrass managers with some important options for herbicide rotation programs to control broadleaf weeds.

#### Some closing thoughts

After reading this article you may be thinking that I'm being melodramatic or just looking for a different tangent to write about. However, while the overall problem of herbicide resistance in cool season turfgrass is still relatively minor this does have the potential to become one of the more significant management issues that turfgrass managers will face in the future. So, you should do your part and adopt a proper herbicide rotation program. The other thing that you should do is to remain observant.

Whenever an herbicide application fails it has historically been acceptable or even easy to just rationalize the failure – "It must have been mixed wrong" or "The product was applied incorrectly" or "The weather must have been bad after I applied it". These things can and unfortunately do happen. But, when noticing a herbicide failure, if the herbicide targets more than one weed, observe whether all the weeds kept growing or is it just one species that didn't seem like it was controlled adequately. If this is the case then certainly follow up. It could also be that you have found an herbicide resistant population. Report suspected cases to your state extension specialist. They may be able to do tests to verify the resistance and then alter management recommendations for control of that weed. Table 2. Classification of postemergence grassy and sedge herbicides registered for use in cool seasonturfgrass according to both the Herbicide Resistance Action Committee (HRAC) and the Mechanismsof action codes according to the Weed Science Society of America (WSSA). A proper herbicide rotationinvolves changing between not just products or chemical classes, but modes of action.

HRAC (WSSA) CODE AND MODE OF ACTION	CHEMICAL CLASS	COMMON NAME	EXAMPLE TRADE NAME
A(1) Acetyl CoA Carboxylase (ACCase) Inhibitors	Aryloxyphenoxy propionate	Fenoxaprop	Acclaim
B(2) Acetolactate Synthase (ALS) inhibitor	Pyrimidanyloxy Benzoic Sulfonylurea Sulfonylurea	Byspryibac-sodium Chlorsulfuron Halosulfuron-methyl	Velocity Corsair Sedgehammer
C1(5) Photosystem II inhibitor C3(6) Photosystem II inhibitor	Triazolinone Benzothiodiazole	Amicarbazone Bentazon	Xonerate Basagran T/O, LESCOGRAN
F2(27) 4-Hydroxyphenylpyruvate Dioxygenase (HPPD) Inhibitors	Benzoylpyrazole Triketone	Topramazone Meostrione	Pylex Tenacity
O(4) Synthetic auxin	Quinoline carboxylic acid	Quinclorac	Drive

**Table 3.** Classification of postemergence broadleaf herbicides registered for use in cool seasonturfgrass according to both the Herbicide Resistance Action Committee (HRAC) and the Mechanismsof action codes according to the Weed Science Society of America (WSSA). A proper herbicide rotationinvolves changing between not just products or chemical classes, but modes of action.

HRAC (WSSA) CODE AND MODE OF ACTION	CHEMICAL CLASS	COMMON NAME	EXAMPLE TRADE NAME
B(2) Acetolactate Synthase (ALS) inhibitor	Triazolopyrimidine Triazolopyrimidine	Florasulam Penoxsulam	Defendor Lockup
E(14) Protoporphyrinogen Oxidase (PPO or Protox) inhibitor	Aryl triazinone Aryl triazinone Phenylpyrazole	Carfentrazone Sulfentrazone Pyraflufen-ethyl	Quicksilver Dismiss Octane
O(4) Synthetic Auxins	Benzoic Acid Phenoxy – carboxylic Acid Phenoxy – carboxylic Acid Phenoxy – carboxylic Acid Phenoxy – carboxylic Acid Pyridine – carboxylic Acid Pyridine – carboxylic Acid Pyridine – carboxylic Acid	Dicamba 2,4-D 2,4-DP MCPA MCPP Clopyralid Fluroxypyr Triclopyr	Banvel Lontrel, Confront Turflon



## IT'S GOOD BUSINESS TO DO BUSINESS WITH OLCA SPONSORS

OLCA offers great annual sponsorship packages to supplier members who are interested in constant visibility while supporting Ohio's lawn care operators. See the Sponsorship Application in this newsletter for details on what each level of sponsorship includes. Members are encouraged to support the sponsors who support the organization.

### OLCA Thanks the following 2019 Sponsors:

Real Green Systems Turfware Advanced Turf Solutions Nufarm Syngenta

## MARK YOUR CALENDAR!

## NOVEMBER 2: A GRATEFUL EMBRACE

Dayton National Veterans Cemetery • Dayton, OH Ohio Western Reserve Cemetery • Rittman, OH

## DECEMBER 4: ANNUAL MEETING

Callahan's Columbus, Columbus, OH





## PURPOSE BUILT

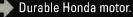
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In 2006 we became fed up repairing equipment made by others and decided to start building our own spreader sprayer! For the next four years, we worked through friendly fabrication companies to build our parts while we developed prototypes of our machine. In 2010 we made the large investment to setup our own fabrication shop, brought in our lead developer and made the investment to purify our spreader sprayer and the processes necessary to manufacture the equipment at high levels of quality. We are now finally happy with the results and feel many others will be too!

After 11 years of testing within our own lawn care business, we finally brought the TR360 to market late in 2016. We 'tested' the machine on our own fleet of lawn service trucks and were happy. We strongly feel you will be too! The TR360 is well built, simple to operate and easy to maintain! Reliable!



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# OHIO LAWN CARE ASSOCIATION

### Phone: 800-510-5296 • www.OhioLawnCare.org

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