



# Our Commitment to Responsible Environmental Practices



At The Toro Company, we are committed to helping customers enrich the beauty, productivity and sustainability of the land through market-leading innovation. This constant focus has fueled creative solutions to increase fuel and energy efficiency, reduce emissions, and better manage water resources. Equally important, we continually seek to reduce the environmental footprint of our global manufacturing operations – in addition to reducing water usage, waste and energy where possible.

## Alternative Energy Products

**From our early beginnings, innovation has been key to our success and market leadership. This includes recent product introductions powered by propane, biofuels, hybrid, advanced battery, electronic fuel injection, hydrogen fuel cell, and LED technologies.**

### Golf / Grounds

- In 2015, Toro introduced the industry's first fairway mower with a true hybrid drive system. With patented PowerMatch™ technology, the Reelmaster® 5010-H boasts average fuel savings of 20 percent when compared to other conventional fairway mowers and significantly more fuel savings when operated in economy mode.
- Toro's new GeoLink™ system for Multi Pro® sprayers uses GPS technology to deliver more consistent and accurate applications, generate coverage reports, and provide substantial savings in chemical costs.
- The Toro® Greensmaster® eFlex®, the industry's first lithium-ion battery-powered walk greens mower, is now manicuring greens and sports fields at championship venues around the world. The eFlex can mow up to nine greens on a single charge.



Reelmaster 5010-H Hybrid



Greensmaster eFlex

- Toro's Greensmaster® TriFlex® Hybrid riding greens mower features an all-electric reel drive system.
- With a focus on innovation and environmental responsibility, Toro's EnergySmart® label is about efficiency in fuel and labor – and providing sustainability improvements for our customers.
- Toro's innovative Smart Power® technology automatically transfers power where it's needed on the machine – to prevent from bogging down in heavy cutting conditions and to keep the blades at optimum cutting speed for a superior quality of cut.

- In 2010, The Toro Company collaborated with an aerospace and defense company to develop two utility vehicles powered by advanced hydrogen technology. These prototype vehicles were delivered to the U.S. Defense Logistics Agency for operational demonstration. Toro also participated in a three-year project with the New York State Energy Research and Development Authority (NYSERDA) to develop similar hydrogen powered equipment.

### Residential / Commercial

- Several Toro® and Exmark® commercial mowers incorporate closed-loop Electronic Fuel Injection (EFI) systems to offer significant benefits in improved startability and performance, and dramatically reduced fuel consumption. In some cases, commercial landscapers who have adopted EFI technology have realized up to 25 percent in fuel savings over comparable carbureted engines.
- Toro's Horizon™ technology on select Z Master® models, and Exmark's RED™ technology on select Lazer Z® models, provides on-board intelligence that enables operators to match the power needed to specific mowing conditions. Coupled with EFI and E-governor technologies, operators can achieve significant fuel economy. In fact, Horizon and RED-equipped models can use up to 40 percent less fuel than their carbureted counterparts, with no sacrifice to mower performance.
- Incorporating the latest in LED technology, Unique Lighting Systems® innovative FLEX GOLD™ Series LED lamps can reduce energy usage by up to 85 percent compared to halogen lamps.



- Providing the power and performance of a gas trimmer, Toro® lithium ion battery-powered string trimmers help homeowners tackle tough tasks around the yard, and include an exclusive storage-mode feature that allows for longer runtimes and helps extend battery life.
- Toro® and Exmark® propane-powered professional mowing equipment not only help reduce emissions, but also provide increased fuel efficiency for extended runtimes and create a lower cost of ownership over the life of the machine.
- Toro and Exmark were first in the turf industry to approve B20 biodiesel fuel for most commercial and landscape contractor equipment.
- Our proprietary Recycler® cutting system mulches grass clippings into fine particles to return vital nutrients and moisture back to the soil, helping reduce yard waste sent to landfills and fertilizer usage.



FLEX Fixtures

## Irrigation Efficiency

**We understand the importance of protecting our valuable water resources. That is why we are committed to developing innovative irrigation solutions to help our customers worldwide better care for golf courses, sports fields, public green spaces, agricultural fields, and commercial and residential properties. Our many cutting-edge and award-winning products help apply water more efficiently, while saving money and improving growing conditions. In recognition of our commitment to driving water sustainability, The Toro Company was invited to the nation’s capital in 2016 to participate in the first-ever *White House Water Summit* to help generate awareness around the important issue of water and solutions to protect this vital resource.**

### Golf / Grounds

- The Toro Company is a longtime partner of the Environmental Institute for Golf (EIFG), the philanthropic arm of the Golf Course Superintendents Association of America, donating more than \$1.8 million to help support scientific turfgrass research, education and scholarships for future industry professionals.
- Toro’s PrecisionSense™ site assessment technology received the 2013 Tekne Award in agricultural technology by the Minnesota High Tech Association, along with Best New Product in the golf category in 2011 by the Irrigation Association. This patented system measures the variability of key site attributes – including soil moisture, salinity, compaction and plant performance – to help customers improve water and resource efficiency, and ultimately produce healthier turf.



Turf Guard® soil sensors

- Toro’s newest sprinkler heads have vastly improved nozzle performance to maximize distribution uniformity and reduce the need to apply excess water.
- The Toro® Lynx® Central Control System allows golf courses to regularly monitor turf conditions and make adjustments to watering schedules to ensure only the required amount of water is being applied and improve course playability.
- The Toro® Turf Guard® wireless soil monitoring system measures and reports soil moisture, temperature and salinity. The real-time data helps customers make decisions on when and how much to water. This allows them to keep their turf healthy without over or under watering.

### Residential / Commercial

- Toro was recognized by the U.S. Environmental Protection Agency as the 2015 WaterSense® Partner of the Year for contributions in product innovations to improve water efficiency. The company was the first large irrigation product manufacturer to receive the honor.

- With a focus on providing sustainable solutions in water management, Toro's Irrigation Business received the 2014 "Sustainable Design and Innovation Award" from the City of Riverside (California). Presented to companies that exemplify excellence in green building standards, Toro was recognized for its efforts in optimizing energy usage, conserving water resources, and using environmentally preferable products in site design.
- The award-winning Toro® EVOLUTION® irrigation controller provides the perfect balance of simplicity and sophistication with its intuitive interface, USB functionality for future water-saving upgrades, and smart control. Wireless connectivity to Toro weather sensors and soil moisture sensors enables each irrigation program to be controlled independently and automatically adjusted based on weather or soil conditions, while non-irrigation programs and wireless relays make it easy to control landscape lighting systems.



*Precision™ Soil Sensor*

- Leveraging Toro's innovative Turf Guard® wireless soil sensing technology used on golf courses and sports fields, the award-winning Precision™ Soil Sensor helps homeowners maximize irrigation efficiency by preventing scheduled irrigation cycles from running when sufficient moisture is already in the soil.
- Toro's patented and award-winning Precision™ Series Spray Nozzles easily retrofit existing irrigation systems to deliver up to 30% savings in outdoor water use.
- Since 2014, Toro has partnered with the Wyland Foundation® to raise awareness on the importance of efficient water use through community events, tradeshow and school outreach – including the National Mayor's Challenge, where cities and residents compete for most "water wise."

- Originally developed and funded by Western Municipal Water District and Riverside Public Utilities in 2010, the [www.FreeSprinklerNozzles.com](http://www.FreeSprinklerNozzles.com) program has expanded to include 28 California water agencies serving over 75 different communities. With over 1.2 million Toro® Precision™ Spray Nozzles redeemed so far, water agencies estimate potential water savings exceeding 7.8 billion gallons of water over a five-year period.
- In 2015, Toro introduced "The Water Zone" weekly radio show in Southern California to address the state's drought situation, provide an informational platform for water agencies, and educate listeners on products and practices to help improve outdoor water use efficiency.
- In 2009, Toro became a founding partner of the Certified Water Manager Program. Created and managed by the California Landscape Contractors Association (CLCA), this is the first and only "performance based" certification program for water management in the country. The program provides the training and tools to enable irrigation contractors to manage landscape sites to water budgets set by California's Model Water Efficient Landscape Ordinance.



*Precision™ Series Nozzles*

## **Agriculture**

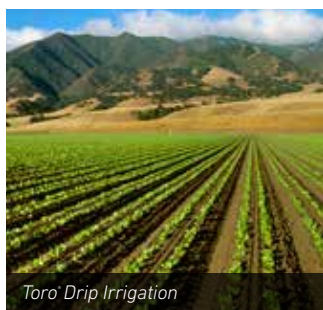
- In the agricultural market, which uses roughly 70% of the world's fresh water withdrawals, Toro innovates and manufactures micro-irrigation systems that help farmers, large and small, create value for themselves and be better stewards of the land. For decades, Toro's Blue Stripe® hose and Aqua-Traxx® drip tape have been trusted by farmers worldwide to apply water slowly, evenly and directly to the crop root zone. As a result, crop yields, quality and resource use efficiency are improved, environmental degradation is dramatically reduced, and water waste is minimized.



*Small Farm Drip Irrigation Kits*

- Toro's patented new Aqua-Traxx® FC (Flow Control) drip tape is the latest advancement in precision drip irrigation. Aqua-Traxx FC's innovative flow control design provides growers the best of both worlds with the flexibility to adjust overall irrigation application rates, while maintaining uniform irrigation throughout the entire field – even in long runs or over hilly terrain.
- Helping growers globally, Toro's Micro Irrigation Business introduced Small Farm Drip Irrigation Kits to promote agriculture as a tool to fight hunger, malnutrition and poverty in developing countries around the world. In February of 2016, the Micro Irrigation team helped install the first Toro drip kit in Uganda.

- Toro has partnered with The Western Growers Association to support the organization's new Technology and Innovation Center, and to help educate and train existing and next-generation farmers to improve on-farm irrigation efficiency.
- To help educate and inform farmers on the benefits of drip irrigation, Toro's blog, [www.Driptips.toro.com](http://www.Driptips.toro.com), provides a connection to related industry news and offers a complete library of educational resources – including case studies, manuals, software, recorded webinars, videos, literature downloads and more.



- Toro's award-winning Drip Irrigation Owner's Manual is one of the most comprehensive drip irrigation guides available to help educate row, field and permanent crop farmers about the proper layout, installation, operation and maintenance of drip irrigation systems. It is now available online or in hard copy; in metric or standard English units; and, in English, Spanish, Italian or Chinese languages.
- Toro's growing suite of Solutions Brochures offers farmers the chance to hear directly from others who have benefitted specifically from drip irrigation. This includes case studies that examine the benefits of drip irrigation on row, field, and permanent crops in terms of yield and quality enhancement, resource use and cost reduction, minimizing risk, and improved environmental conditions.

- Toro Micro Irrigation is a founding member, supporter and presenter of webinars via the Grange Network, a forum for agricultural professionals to educate the agricultural community on best practices and technology adoption.
- Toro Micro Irrigation is a leader and active member of many organizations supporting irrigation efficiency, including the California Ag Irrigation Association (CAIA), the California Irrigation Institute (CII), the Irrigation Association (IA), the American Society of Agricultural and Biological Engineers (ASABE), and the American Society of Agronomy (ASA) among others.
- Toro has developed software tools to help farmers adopt drip irrigation, and identify the best system design for optimal water and resource use efficiency. For example, Toro's AquaFlow Design Software reports the predicted emission uniformity of a proposed drip irrigation system design – while Toro's Drip Irrigation Payback Wizard helps growers immediately view predicted cost savings and revenue benefits through the adoption of high-efficiency drip irrigation technology. Both tools are available free of charge.

## Operational Efficiency

**The Toro Company continually seeks to improve its energy efficiency and reduce the environmental footprint of its global manufacturing facilities.**

- The company's Tomah, Wisconsin, manufacturing facility, which produces professional equipment sold worldwide, is registered as ISO 14001:2004 compliant. This requires integration of environmental protections and compliance into all aspects of operations to ensure continuous improvement.
- Our irrigation testing facility in Riverside, California, includes a closed-loop system that utilizes filtered, recycled water to minimize overall water and energy consumption.
- The Toro Company installed exhaust-scrubbing equipment to reduce carbon monoxide and other contaminants by more than 90 percent at its engineering test facility in Bloomington, Minnesota.



- The company's global manufacturing facilities further reduce environmental impacts by:
  - Recycling steel, aluminum, plastics, cardboard packaging and paper.
  - Recovering and reusing powder (paint) coating.
  - Recycling water used in production through a wastewater treatment system.
  - Replacing certain cleaning systems with new systems for reduced energy and water requirements.
  - Replacing inefficient lighting fixtures to reduce our energy usage and carbon footprint.
  - Recycle and reuse 90+ percent of plastic scrap generated by manufacturing drip irrigation products by recovering and reusing them in our processes.
- The company has implemented a rainwater collection and redistribution system at its facility in Adelaide, Australia, to irrigate the grounds.
- Where feasible, Toro transports product components from suppliers to our facilities in reusable or recyclable packaging.

## Community

**By collectively leveraging the expertise and resources of The Toro Company and our business partners around the world, we believe we are uniquely positioned to meaningfully advance the interests of both our customers and the industries we serve. Specifically, we believe in supporting efforts that enrich outdoor landscapes for environmental benefit and enjoyment through outdoor physical activities, and promoting the efficient use of water by ensuring productive and sustainable practices. We believe we can also make a difference through access and education in specific areas where our brands, expertise and products matter.**

### Environment

- In 2012, Toro partnered with Audubon International and The First Tee to introduce the 'Live Green' environmental education and golf course improvement program. Making stops at golf courses around the country, students from local chapters of The First Tee learn from golf superintendents on their role in maintaining the course and caring for the environment – in addition to participating in several projects to improve areas of the golf course.



'Live Green' Environmental Education

- Toro supports the Environmental Institute for Golf (EIFG) and, through its cumulative support, has invested more than \$1 million dollars in scientific research, education and scholarships for future turfgrass professionals. One of our most recent initiatives is an exclusive partnership with EIFG's 'Rounds4Research' specifically aimed at increasing funding for turfgrass research across the United States.
- As a long-standing supporter of The European Tour, and many environmental organizations and causes around the world, we proudly support the Tour's 'Green Drive' initiative in partnership with Golf Environment Organization to help improve compatibility between the game of golf and the environment by further driving sustainable practices in the industry.

### Education

- In partnership with iDE, a nonprofit dedicated to helping farm families in developing countries access the tools and knowledge to create a sustainable future, we are helping promote agriculture as a tool to fight hunger, malnutrition and poverty. This includes efforts to train agro-dealers in Africa on the importance of drip irrigation and smallholder farmers on the adoption of this technology to maximize critical water resources and further improve crop yields.
- To promote the profession of landscape architecture, Toro has partnered with the Landscape Architecture Foundation to support the Olmsted Scholars Program. This scholarship recognizes outstanding students from the accredited landscape architecture program in the U.S. and Canada.



- Toro for many years has invested in academic and technical programs in agronomy to help further the education of future turf management professionals. These commitments include scholarships, product support, and collaboration with students and faculty to advance the industry and improve efficiency in resource management.

- Working in conjunction with the Irrigation Foundation and NALP, we provide scholarships and opportunities for future professionals to attend key industry tradeshows to further their education, develop professional contacts, and gain valuable experience in their core fields.



**Access**

- Toro has served as preferred supplier of turf equipment and irrigation to The First Tee since its founding in 1998, and supported the organization’s mission to enhance young peoples’ lives through educational programs and ready access to the game of golf. Since 1998, we have donated over \$1 million in student scholarships and equipment donations to chapters (golf courses) in need, and introduced several unique programs to provide greater awareness around the business and science of golf.

- The Baseball Tomorrow Fund promotes the growth of youth participation in baseball and softball by funding programs, field renovations and purchases of equipment. We proudly support this organization providing grantees with discounts on turf maintenance equipment, as well as an annual equipment donation program.





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