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Green Water

Green has become a buzz word in today's culture; it's in every commercial, newscast and magazine. Describing something as "green" implies it is environmentally friendly in how it's made, used, or what it does. The irrigation industry is green for several reasons, among them: its push toward higher-efficiency products, its efforts to educate the rest of the industry on greener irrigation practices and the simple fact that the purpose of irrigation is to supply water to plants, aiding in their survival and aesthetics.

Some of the high efficiency products being encouraged by the irrigation industry serve purposes such as cutting off irrigation when it's raining or windy, slowly applying water with accurate estimates of application rates exactly where it's needed, and even in phases, to reduce runoff. Rain sensors are one of the many innovations in the effort to reduce wasteful watering practices; by interrupting the circuit on the irrigation controller when it's raining the sensor saves thousands of gallons of water from being needlessly applied. There are other ways besides the rain sensor to save water during irrigation. Any newer controller can now be programmed to water the zones on the system for a portion of their desired precipitation. After a break, a soak cycle, it will then go back and apply more water to reach the level of irrigation needed; allowing time for the water to percolate instead of puddle- and then run off as it will when water is applied more quickly than can be absorbed. There are charts describing percolation rates of different soil structures, slopes and vegetative covers so programming your run times and soak times is easy. Runoff should be avoided because it's wasteful and washes harmful wastes and chemicals into sewers and from there, into streams and groundwater. Also, there are many urban areas suffering from water shortages; when demand is higher than supply, running irrigation irresponsibly is a serious transgression against everyone who draws water from that source. There is other equipment that applies water efficiently: newer nozzles have been engineered to throw water evenly over the whole of their radii so that all areas of the zone will have matched precipitation rates, enabling an efficient irrigation plan. There is also a technique called drip irrigation. This technique uses tiny emitters that can apply as little as half a gallon per hour directly to the root zone of the plant so that none runs off and the plant gets the exact amount it needs. It's the most efficient form of irrigation because the emitters lie under the mulch and the water is released slowly so that it doesn't puddle and run off. It's absorbed into the root zone of the plant immediately; none is wasted by soaking through

mulch, blowing away in the wind, evaporating in direct sun, running off or by being applied outside the root zone of a plant.

The irrigation industry does a great deal of work in an effort to educate landscapers and other industry folk on the proper ways to irrigate and the tools available to them. I myself have attended a workshop put on by Hunter Industries and found it very informative. The school I attend is small and only provides one irrigation course; the opportunity to attend outside educational workshops is fantastic. I've been taught about evapotranspiration (ET) so that I can determine the rate at which plants use water and apply exactly what it needs with no waste. Happily, there is historical information for my region so there is little or no math required on my part! There is also a gauge for ET that records the information more specifically than the regional charts provide, though the charts provide enough information that systems can be efficient without the gauge. There is such a vast amount of information available to the irrigator and endless education opportunities; it is surely his own fault if he waters irresponsibly. Even here in Atlanta I've seen incorrect practices like spray heads fogging, pavement soaked, and systems running in the rain; these practices make me wonder how contractors stay in business if they can't even bother to learn their trade. There's always new information, products and theories to make us better stewards of what we used to think of as a renewable resource that, frequently, is too scarce for our liking.

The purpose of irrigation in general is to aid the survival and health of our landscapes. When a newly installed landscape is left to be watered by nature, more often than not, several plants will perish from the stress of being planted. This is common partly because proper planting procedures are seldom followed. If a new landscape is provided with regular irrigation, however, it will not only survive but thrive- saving the homeowner the cost of replacing the plants and the labor involved. Allowing portions of a landscape to die and then replacing them is not green, it is wasteful. Lately developers have been required to plant a certain number of trees in areas that are paved with impermeable surfaces, such as parking lots. The size of these parking lot islands is usually insufficient for the plant that inhabits them, making supplemental irrigation necessary. There are countless situations that require supplemental irrigation to protect the investments of home and business owners: landscapes are expensive! Helping trees and plants survive in tougher situations than nature would have had them (the situations *we* create) is surely green.

All of these are reasons that the irrigation industry is green. As a student looking to get into the irrigation industry, I believe that during my career I will see many more advances in irrigation technologies that will make watering even more efficient and environmentally friendly. The irrigation industry should be proud of its forging the path into a greener-minded landscape industry with its products, education efforts, and basic purpose in making our landscapes beautiful, healthy and, quite literally, green.