

SPRINKLER EFFICIENCY

Switching from brass could pay dividends



By Tim Linden

If there was one thing, Craig Stafford of Nelson Irrigation could get growers to do it would be to replace their brass sprinkler heads with his firm's proprietary Rotator® sprinklers made of high impact strength plastic.

"Uniformity is king and our Rotator technology is superior," he said. "The goal (in irrigation) is to minimize dry spots and nothing does it better than our R2000 Windfighter and our other products in that line."

Nelson Irrigation is a family-owned business with the roots of the firm dating back more than 100 years. It began when Lewen Russell Nelson invented the "Clincher" hose coupler and opened Central Brass and Stamping Company in Peoria, Ill., in 1911. Eventually, the original company was sold in 1972 in Peoria, but at the same time a new company — the Nelson Irrigation Corporation — was opened in Walla Walla, Wash., where it has operated ever since.

Stafford, who is the regional manager covering California, Arizona and Nevada, said the firm specializes in highly efficient Rotator sprinkles that "save water, save energy and do a better job of irrigating," with the agricultural community being its number one client category. He said the company's focus has always been to design, develop and engineer proprietary irrigation equipment

that works better and saves water. Over the years, the company has sold many different products but about a quarter of a century ago in 1987, the firm developed the first Rotator sprinkler. It has been perfecting that original technology ever since and today offers many different Rotator sprinklers with varying flow levels and specifications. Stafford said there is a Rotator sprinkler available for virtually every agricultural application.

He said sprinkler technology has improved tremendously over the years and Nelson Irrigation is at the forefront of that movement. "Our Windfighter does an excellent job especially in the face of a little wind, which is the natural situation. It epitomizes what we do."

Stafford explained that most sprinklers are tested inside a building under pristine windless conditions. Those tests might show a close to perfect watering pattern, but it isn't under the conditions facing farmers. "Our Windfighter doesn't do as well indoors but give it a little wind and it performs better, which is where it is supposed to work."

He said Nelson Irrigation builds all of its products with a central focus: solving the grower's problems and getting water in the ground at a highly efficient rate. "That's what it's all about," he said.

The company has a full array of sprinklers including a family of Pivot Rotators, Big Gun Sprinklers and control valves that work for many different agricultural applications. But for high value vegetable and fruit crops, he said the Rotator series is its number one seller.

While the company has many loyal customers in virtually every growing district, Stafford said there are still many growers that swear by traditional brass impacts, even in the face of evidence showing that the Rotator sprinklers are superior, and he says, every bit as durable.

The Nelson Irrigation representative said in some instances, growers already own brass sprinklers and don't want to make the capital investment to switch over. But he said in other cases "they don't even recognize they have a problem."

The brass impacts might be doing what the grower considers to be an adequate job, but Stafford said they are not applying water in as efficient and uniform manner as the Rotator sprinklers. In these times when water is both scarce and expensive, that's very important. He said you can look at a field and see the difference — with the brass sprinklers, there is much more of a pooling effect on the ground where water is applied unevenly. That effect just doesn't happen with the Rotator sprinklers. Combined with other Nelson Irrigation products, including its Mini Regulator Drain Check that assures the optimum pressure is flowing through the pipes and keeps water in the system until it is pressurized, Stafford said growers can precision irrigate with sprinklers.

He added that in general brass impacts are more expensive and are harder to repair, along with being less efficient. In fact, Stafford seems a bit surprised that growers are still buying brass impacts 25 years after Rotator sprinklers came on to the market.

He can also turn his attention toward drip irrigation and argues that while drip irrigation has its applicability, sprinkler irrigation can be every bit as efficient while doing a better job of covering the entire root zone and producing a better healthier plant in many instances. "It is clearly the case with trees such as almonds and walnuts (with their larger root zones) and also works with many other crops, including row crops."



He said many vegetable growers have found that using sprinkler irrigation to start a crop is the preferred method as that irrigation mode tends to create a more robust stand. He said even growers that swear by drip often start their crop with sprinklers before switching to drip.

Stafford said the many different Rotator sprinklers available allow for any use and very much illustrate the advancements in irrigation over the past generation. Thirty years ago, he said most growers used big nozzles and big sprinkler systems with a goal of just getting water on the field. "Putting a tenth of an inch (of water per hour) on an orchard wouldn't even be considered irrigating it... today a tenth of an inch could be considered too much in some instances."

Nelson Irrigation works with growers through a network of distributors that both sell and install its products. However, Stafford and other personnel in the field are constantly working with growers one on one to discuss their problems and come up with solutions. He often directs growers to the firm's website (nelsonirrigation.com) which is loaded with information about its various products and their applications. 