

The technological tsunami continues

Commentary



By **DAN CRUMMETT**

IN 1976, when I began work at Oklahoma State University for the Co-operative Extension Service writing 4-H and agriculture stories, the office was still abuzz with stories and pictures of what research ag engineers were doing to cut wind loss encountered by center-pivot sprinkler irrigators. The crux of the project was lowering the delivery angle of high-pressure impact sprinkler heads (mounted on top of the span) to protect the water from the incessant winds of the Great Plains. (Hindsight can be a little amusing, can't it?)

Then, a couple of years later, I climbed an icy pivot tower in the Oklahoma Panhandle about Christmas time to take pictures for a story on the conversion to low-pressure systems — an advance that essentially saved about 30% in pumping costs where it was adopted.

Better wetters

It wasn't long until the stories evolved from low-pressure conversions and falling water table levels to the addition of drops and precision application nozzles as "low-energy precision application" became a household word among irrigation circles. That, too, brought another significant cut in pumping costs and water applied.

Throughout that time, we also witnessed the engineering of improved gated pipe, surge-control valves, and poly-pipe systems that cut labor and inputs significantly even on surface-irrigated land.

Then, it was boom time for pivot makers as government programs and low-cost loans helped fuel a steady stream of semitrailer rigs full of aluminum pipe into the land watered by the High Plains Aquifer (Ogallala to those of

us who've lived in Oklahoma and Texas since Noah floated by). With those new rigs in the 1990s came computerized control panels and ever-more efficient and convenient engineering to make irrigation a simpler form of management, and always the technology continued to make watering more efficient. I was amazed when I realized one Oklahoma Panhandle farmer was watering 26 circles with nearly no hired help.

Politically, the good news of better

water efficiency took a strange turn when growers naturally began irrigating more acres. "You aren't saving water; you're using more," critics shrieked, as more dryland production moved under sprinklers to provide a more reliable food and fiber source. And, the folks using water from federal irrigation projects in the West came under fire for using that water for irrigation as California's ever-expanding population continued to want to wash its cars and

flush out bays and harbors.

And so it goes, a finite resource — fresh water — is allocated by dollars and votes, and agriculture continues to come to the table with more efficiency.

Irrigators today grow far more produce on a given drop of water than their predecessors. Still, like all other innovation in agriculture, it's those individuals who know their costs, adopt new technology soon after it is available and keep an eye on Congress who thrive.



Correction

IN the January issue, we misidentified Senninger's new Xi-Wob pivot sprinkler head as its predecessor. The New Xi-Wob is specifically designed for use on rigid polyethylene or steel drops



and uses a counterbalanced design that eliminates the need for flexible hose on the drop to account for vibration. The new nozzle performs at pressures as low as 10 to 15 psi, and comes in two different grove geometries based on droplet sizes needed. For more information, call (407) 877-5655 or visit www.senninger.com.

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