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# Push-button Irrigation

by DAVE BATES

PHILATELISTS have their stamps and numismatists have their coins. John Evanson has his electricity.

Amps and volts and transformers have been the Taber, Alta., irrigation farmer's hobby for as far back as he can remember.

Trouble is, he's never had much chance to indulge himself in things electrical until recently. Now that his sons — Dale, Jerold, Thomas and Leif — are taking over as John eases out of the family operation, he's finally found the time to follow up on a lot of his dreams — and one of them is push-button irrigation.

John and his sons still haul pipe, prime pumps, clean screens and check fuel levels. But on 480 of the 1,200 acres they seed annually (900 irrigated), getting water onto crops entails little more than pushing a button in a small open-front shed that houses 2 electrically driven turbines. The shed still houses one gas-powered pump and the Evansons

have conventional pumps elsewhere. But John's plan is to install electric turbines across the farm eventually.

"An electrically powered system is just great to use," says the self-taught electrically minded farmer who doesn't doubt he might have become an electrician if he hadn't had to help out on the farm. "It's self-contained, automatic, quiet — I can take care of all this land right here (3 quarters) where before I was always running back and forth. When I designed this, I tried to eliminate all the headaches I'd had over the years."

The Evansons use wheel moves to irrigate 900 acres of sugar beets, soft wheat and corn. Barley, durum wheat and triticale are grown on the 300 dryland acres.

"This used to be wasteland when I was a boy," says John, reminiscing about the 480 acres now irrigated by his push-button system. "There were sand dunes, blowholes, badger dens and cattle trails all across it. I developed it over the years and it's

really valuable land now — it's a good sandy soil, drains well and doesn't alkali."

The water they use comes from a canal that's part of southern Alberta's extensive irrigation system. It flows into a settling pond right behind the turbine shed, then spills over a lip into a well before being drawn through a series of screens, through the turbines and pipe, and finally onto the crops.

The combination of settling pond and screens has had a predictable effect on sprinkler life and almost eliminated the labor required to check screens in conventional pumps. Although separators clean ditch water to a degree, they can't beat the settling-pond approach, says John.

"We used to wear out some sprinklers in less than a month," he recalls. "Since we've had the settling pond, we haven't had a nozzle plug up in 2 years."

Of course, electricity's real appeal is the maintenance factor.

"The thing I really like about electricity is that you don't have as much maintenance — you don't have to worry about it as much."

That's not to say his new system is worry-free.

"You always have to watch out for some things — a pipe might blow or a latch can break — but I'm going to install low-pressure controls that will shut down everything if something breaks," says John.

From a cost standpoint, he confesses he's never compared any fossil fuel with electricity. Noting that energy prices keep going higher, he figures operational costs are comparable.

John says his sons are just as taken with the turbine as he is. Dale, for one, echoes his father's enthusiasm.

"It's really nice to go push a button and have it all primed and ready to go," he says. "It's a lot more efficient and easier to run than a gas motor."

Dale's keen on the low-maintenance feature, too.

"Those turbine pumps with electric motors are probably going to be maintenance-free for about 25 years. A gas motor may run for 2,000 hours (3 years) before you're looking at replacing rings and bearings and overhauling it completely."

It's the efficiency factor that perhaps pleases Dale the most.

"You can move a lot more water in the same amount of time. In 12 hours, you maybe can put on 3½" to 4" instead of 3", and getting inches on is what irrigation's all about."

For John Evanson, one of the big attractions of his electrically-powered turbine pumps is their low maintenance requirement. These units supply 480 acres

