

In the ag business, retaining water is a good thing

Do 50 to 90 per cent increased crop yields and the capacity to store spring rains appeal to you? Read how federal scientists have created a system that achieves this and at the same time prevents agricultural run-off.

Dr. Chin Tan, a researcher at the Greenhouse and Processing Crops Research Centre in Harrow, Ont. has created an integrated reservoir and irrigation system. It captures excess water from fields through surface and tile drainage and stores it in a reservoir for future use. This prevents off-farm movement of sediments and provides a way to intercept and recycle leached agricultural nutrients and chemicals. During dry periods, this water (including all the nutrients) can be delivered to the crops through the tile system or through existing centre pivot or trickle irrigation systems.

“This has amazing environmental benefits. We have increased soybean yields by 50 per cent, corn yields by 90 per cent and tomato yields by 50 per cent” says Dr. Tan. “With properly drained soils, this system ensures nutrients are not washed away but recycled and re-applied to the crops during dry periods to enhance plant growth. Delivering water through the tile system or trickle/drip irrigation systems brings it directly to the plant root zone where it is needed.”

With the help of local growers and the local conservation authority, Dr. Tan has successfully tested this system on a large scale. Word of Dr. Tan’s system is quickly spreading across Ontario and into other provinces. One key finding is that the size of the reservoir depends on the need for water and the availability of land. Many growers and specialists in Ontario and Manitoba are implementing it on their farms.

Producers interested in developing Dr. Tan’s system, or other water-related projects, may be eligible for assistance through the National Water Supply Expansion Program (NWSEP). Through this program, applicants such as producers and producer groups can apply for technical and financial assistance to help develop projects which promote the protection, creation or protection of agricultural water supplies.

In addition to the NWSEP, producers are encouraged to participate in the Environmental Farm Plan (EFP) Initiative. Through this program, producers develop an EFP for their operation, which identifies their operations environmental strengths and weaknesses, and recommends solutions to resolve any environmental concerns. Once their EFP is reviewed, producers are eligible to apply for assistance to implement the recommendations outlined in their EFP through the National Farm Stewardship Program.

For more information and to talk with scientists and water specialists across Canada, please contact AAFC and we'll organize an interview with an expert in your area. Scientists can also direct you to local farmers who have implemented on-farm water projects.

Media Relations

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