

Farmers can make rain on their farms

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Twaha Kakooza's 80-acre farm in Bubajjwe village, Kayunga district is green all year round, a marvel for many. His farm has garlic, maize, tomatoes and a banana plantation.

While Kakooza is the envy of the village, his success is really no secret. He constructed a dam and has invested in irrigation.

"Farmers suffered during the recent prolonged dry spell, but it did not affect my crops," Kakooza says.

As we mark the World Meteorological Day, the challenges posed by climate change mean that irrigation is the way to go for Ugandan farmers.

Kakooza's farm has got both drip and overhead irrigation systems. There are many irrigation systems Ugandan farmers can adopt to increase food production.

With irrigation, production can be throughout the year. The common irrigation systems in Uganda include drip irrigation, canal systems

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and sprinklers.

Drip irrigation

Drip irrigation is a method of watering plants using small diameter plastic lateral lines with devices called emitters at a selected spacing to deliver water to soil surface near the base of the plant. The system applies water within the desired range for plant growth.

Kakooza says the system needs a continuous source of pressure for operation. This pressure can be provided by a pump or through gravity.

Water is then distributed on the farm through a plastic pipe network with small

emitters or drippers.

The advantage is that only a plant root zone is supplied with water, thus increasing application efficiency, proper management, less labour requirements and easy weed control.

This system can be operated using both mechanised pumps and force of gravity.

According to Rony Oved of Agromax, the drip irrigation system is good for greenhouses, vegetables and even larger crops.

A complete set that includes a water tank of about 2,000 litres and irrigation lateral lines covering half an acre costs between sh3m-sh4m.



A farmer shows a drip irrigation system he uses on his farm throughout the year

Canal system

The canal or furrow system is a partial surface flooding method of irrigation normally used with clean tilled crops where water is applied in rows.

Under this system, channels are dug through the farm.

"The channels are flooded with water at least twice a week. The water gradually sips into the soils from where it is taken up by the crops," Aloysius Mubangizi, an irrigation consultant says.

For this to be effective, there should be a permanent water source within the vicinity for

example a river or lake or even a pond. It is conducive for all types of crops.

"As long as there is a water source, a farmer only spends money on digging the water channels and occasionally desilting them," Mubangizi says.

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Sprinkler

This is a planned irrigation system in which water is applied by means of perforated pipes or nozzles operated under pressure, so as to form a spray pattern

above the crops.

This is good for both small and large scale farmers. The water is sent to the pipes using either gravity or a pump.

The main disadvantage is that it wastes water since some of it is not absorbed by the crops.

Costs start from as low as sh500,000 for a system that can be operated on a 20x20ft garden.

However, with a change in weather patterns and a shift in government policy irrigation systems are set to become more affordable.

