HOW A WATER PAN CAN BENEFIT YOUR FARM

BUILD • WATER • GROW

Water pans and soil fertility

Correct use of your water pan and building soil fertility can help you grow high-value crops and increase the health of your livestock
How to use the water pan

1. Always have water in the pan
   This keeps the liner in good condition and discourages animals to enter.

2. Fence the perimeter of the pan to ensure safety
   Use barbed wire/chain link or live fence shrubs that do not drop leaves in the pan.

3. Plant grass, like napier grass, along the embankments
   This keeps soil particles from eroding into your water pan.

How to use your water pan for irrigation

**WHEN TO IRRIGATE**

Put your finger into the soil halfway and if its dry then you should irrigate.

**HOW TO IRRIGATE**

Water the soil not the plant, do not have any standing water.

**DO NOT IRRIGATE DURING THE HOTTEST PART OF THE DAY**

AM MORNING NOON EVENING PM

**DRIP IRRIGATION**

It uses the least water and does not require much time to irrigate once the kit is installed.

Cost of implementation and maintenance

**MANUAL IRRIGATION**

It uses a medium amount of water, but can be efficient when done properly. It is low cost.

Amount of time and water used
How to increase soil fertility

**KNOW YOUR SOIL HEALTH STATUS**

- **NUTRIENTS**: Know the nutrient balance of your soil to determine which fertilizers to apply and how much.
  - Low nutrients: 
  - Adequate Nutrients:

- **SOIL pH**: Know your pH so you can take steps to reduce acidity. Acidic soils produce less healthy plants.
  - Low pH: <5.5
  - Adequate pH: 5.5 - 7.0
  - Apply 30 kg of lime per acre 3 months before planting

- **ORGANIC MATTER**: Provides nutrients and also helps retain more water and air in the soil.
  - Low OM
  - Adequate OM
  - Prior to planting:
  - Apply 1 tonne per acre of dry, decomposed animal manure. You should try to have 2-4% organic matter in your soil.

**BUILD SOIL HEALTH TO IMPROVE IRRIGATION EFFECTIVENESS**

Using these practices will make your water pan more effective.

**USE THE RIGHT FERTILIZER**

- Add manure and the right fertilizer

**USE CROP ROTATION**

- Fodder grass is very effective at stopping soil erosion

**ADD MANURE OR COMPOST**

- Organic matter in the soil increases infiltration which lowers erosion

- Nitrogen fixing trees provide nutrients to plants

- The roots of plants such as fodder grass and trees hold the soil together

- Leaves reduce the impact of heavy rains/sun over soil
Correct installation and use of your water pan protects the water pan so that it can be used for many years.

Correct amount of irrigation ensures enough water is available to irrigate all season.

Good soil fertility management leads to healthy crops and effective irrigation.

Soil mulch retains soil moisture so that you do not need to irrigate as often.