

Maintenance of irrigation networks and devices



For a long-term quality and quantity of production at lower cost

Maintenance

Easy and quick to do
If done regularly,
If collecting pipes installed!

No/low cost
Only the purchase of acid/chlorine
can be necessary once in the season

NO Maintenance

After 5 years:
60% clogging
80% loss of production!!!

-600 JD/dunum for tomatoe or
sweet pepper
-1000 JD/dunum for potatoe

Why maintaining irrigation networks and devices?

A regular maintenance preserves design emission uniformity and efficiency, which means it sustains for several years the adequate and uniform flow delivered to the plants

Constant good yield (quantity + quality) on a long period

Steady revenue

Higher life time of the pipes and other devices

Money savings



Maintenance of irrigation networks and devices

Maintenance means light regular activities but also punctual strong check up and cleaning of the networks and devices (at the beginning or end of a season for example).

How to make the regular maintenance?

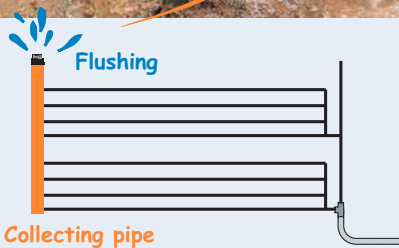


- Repair leakages in the network

- Make regular cleanings of the filters:

- * Sand/media filter: backwash each tank for 5 to 7 minutes, minimum once per week
- * Screen filter: clean carefully the cartridges, minimum once per operation
- * Disc filter: open the discs cylinder and carefully clean between the discs, using a brush if necessary, minimum once per operation if not used with a media filter.

- Make weekly flushing (preferably after fertilizer injection) of the dripper lines for 2 to 3 minutes, at a sufficient speed, until the water is clean. Flushing is done by opening the ends of the lines during operation, allowing water to discharge freely and transport the deposits out of the lines and emitters.



To facilitate the process, a collecting pipe can be added in order to link up the ends of dripper lines into a common sub main. An easily removable plastic plug must be installed at the end of the pipe to flush the lines.



How to make the seasonal maintenance?



- Flush mainlines and manifolds 3 to 4 times per season

Use of acid or chlorination at the end of the season is useful to remove remaining chemical precipitates and organic deposits.

- Make a check up and strong cleaning of the irrigation devices:

- Sand/media filter:**
- Add sodium hypo-chloride (bleach) liquid to each tank and backwash after 1 hour.
 - Check the height of the media inside the tanks. If it is less than 40 cm add some more.
 - Check if the calibration of the backwash is correct.

If the media is very dirty or not in enough quantity, it means that backwash is not done regularly enough or not properly!

The calibration is correct if when you install a tissue on the backwash pipe while backwashing, there is no sand going out from the tank.

Screen filter: clean the screens with fresh water and store them in a dry and safe place until the next irrigation season.

Discs filter: Tie the discs on a string and place them into a 10% chlorine solution for 30 minutes to remove algae and organic deposits.

Fertigation devices: Flush the fertigation tank or dosatron with clean water.

