



# DRIP YOUR WAY TO VEGETABLE PRODUCTION SUCCESS

## • Veggie Irrigation Tips:

- Know your soil – dig and evaluate a profile pit.
- Use quality irrigation equipment only.
- Do not guess how long you should irrigate.
- Select irrigation equipment suited to your needs – do not waste money on equipment that is too advanced for short-term crops.
- Know your crop's water demand and growth potential.
- Collect updated weather data and adapt irrigation scheduling accordingly.
- Ask an expert - the Netafim team and dealers can support you with the right knowledge.

## Precision Vegetable Irrigation

Whether open-field vegetable production is your main farming activity, or a secondary farming activity aimed at ensuring active cash flow, efficiency will be key to profitability. Irrigation is one of several activities which will contribute to success in your vegetable fields – if you can ensure efficient irrigation.

The drive for efficient irrigation calls for precision irrigation practices. Precision irrigation is to deliver the correct amount of food and water to the plant at the correct time and in the right place as efficiently as possible. **It provides both the control and the flexibility needed ensure that each plant receives the exact amount of water and fertiliser it needs. This will allow you to maintain balance between vegetative growth and productivity - an extremely important aspect of vegetable production.**

Although certain irrigation systems offer higher water-use efficiency than other systems, a certain level of precision irrigation can be achieved with any irrigation system. **The key is to install the right irrigation system for the circumstances and to manage this system correctly.** This will ensure the highest possible efficiency relevant to your resources and circumstances.

## Vegetables and Drip Irrigation

Drip irrigation has proven itself to be the most efficient irrigation method and is suitable to most crops. More and more vegetable farmers are turning to this method of irrigation to increase vegetable yield quality and quantity. It may however seem like a too advanced solution for a short-term cash crop. The fact is that there are drip irrigation solutions perfectly suited to seasonal crops and single or limited season implementation.

### Benefits of drip irrigation on vegetable crops:

- Optimal root zone management
- Lower water and fertilizer use
- Access to the root zone despite groundcovers
- Lower risk of crop diseases
- Full utilisation of available land
- Optimal growth in challenging soil
- Minimised evaporation loss
- Ability to better manage plant nutrition through fertigation

"I will never again grow anything without drip irrigation, Without drip, I will waste water and the plants will be more prone to disease. We need to maximise potential by being as efficient as possible in order to make a profit."  
- Meir Messica, Vegetable Farmer, Israel



## Understanding Water Management

Proper system management and irrigation scheduling is pivotal in the success of any irrigation system. To this end, it is important that we understand how soil, water and roots interact and how we can manage water distribution in our soils. Soil is made up of minerals, organic material, water, and oxygen. The percentage of minerals and organic material is a given, but the percentages of air and water is dynamic. More water in the soil will translate to less oxygen and vice versa. Each soil has an ideal point of balance between water and oxygen at which plants in the soil will thrive. The aim of irrigation is to manage the root-zone with precision in order to maintain the perfect soil-water balance.

[Click here to read a full discussion of soil, water, and root interaction and what it means for irrigation decisions.](#)

## Digging for Knowledge

It is extremely important to know your soil. Without knowledge about how water moves through the soil in question, all the calculations in the world will be futile. This is why we must get our hands dirty. It is crucial to dig a profile pit, or do a water distribution test, to determine how long it will take to fill the entire soil profile.

You must know your soil so well that you know exactly what two hours, three hours or four hours' worth of irrigation with your system will do. This is important to ensure a proper wetted area without irrigating past the root zone.

[Click here to read more about, profile pits, soil water distribution tests and irrigation scheduling.](#)

## The Right Product

It is easy to be deterred by the cost of the most complicated drip irrigation solutions. We must however remember that irrigation equipment cost is a sliding scale determined by a host of factors. A comprehensive portfolio of drippers and driplines that cover a wide range of crops and applications is available. Consider a dripline selection graph where the y axis is cost and the x axis is application, durability, clogging resistance and other factors considered in dripper comparison. Of course, movement along the x axis will result in movement along the y axis, that is an increase or decrease in price.

**The question is: what does your crop need and what do your circumstances allow?**

## Thin Wall Driplines for Thicker Wallets

Dripper and dripline selection take into account a variety of factors, each of which is an attribute that the irrigation designer or farmer must deem necessary for the crop and circumstances or not. The purpose being to maintain a balance between dripper cost and performance.

Thin wall driplines are defined as driplines with a wall thickness of 0.4 mm or less. The selection of suitable wall thickness for the driplines to be installed, will be influenced by a variety of factors. The farmer and irrigation designer must, based on the operative and economic considerations, decide on the best dripper and associated wall thickness for the job. Thin wall driplines are specifically aimed to be used for one to three seasons on vegetables and certain field cash crops. These driplines are also perfectly suited for temporary installation for strip wetting for germination.

### Advantages of single season use of thin wall driplines include:

- Lower rand per hectare input cost.
- You start every season with a new dripline, lowering the chance of pathogen spread and ensuring optimal dripline function every season.
- Water quality limits may be relaxed somewhat, as the drippers only need to last a single season.
- Lower operational cost as very less maintenance is required
- Can be recycled.

If the attributes of advanced heavy wall driplines aimed at multi-seasonal use is more than your crop needs and your circumstances allow, these driplines become a waste of money and labour. Thin wall driplines can lead to significant cost savings when some attributes are no longer crucial.

It is however important not to veer from quality when moving to the lower range of drippers and driplines. Choose quality, but choose a dripline suited to your needs.

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## Our Offer

Netafim offers a range of thin wall driplines to answer in every possible thin wall dripline irrigation need. The offer is anchored by our efficient **Aries™** dripline range and the innovative **Streamline™ X** dripline.

### Aries™ - Durable and Flexible



Aries™ is an integral non-compensated dripper for all wall thicknesses that is highly durable, lowers costs and enhances performance for a wide range of applications. The Aries™ dripper includes the patented TurbuNext™ labyrinth with a much better turbulence coefficient. The TurbuNext™ labyrinth maintains a unique geometric tooth-shaped structure that increases turbulence, enabling the creation of wider, deeper and shorter passages. **Aries driplines are manufactured locally which allows product flexibility with regard to emitter spacing and flow rates.**

Thin wall dripline (TWD)		
Model	Available flow rates (ℓ/h)	Wall thickness (mm)
16125	1.00, 1.50, 2.00, 4.00	0.31
16150	1.00, 1.50, 2.00, 4.00	0.38

Medium wall dripline (TWD)		
Model	Available flow rates (ℓ/h)	Wall thickness (mm)
16250	1.00, 1.50, 2.00, 4.00	0.63
12007	1.00, 1.50, 2.00, 4.00	0.70
16008	1.00, 1.50, 2.00, 4.00	0.80

*\*Also available in a 1.00 mm heavy wall dripline.*

### Streamline™ X - The Toughest Thin Wall Dripline Ever Made



This extremely durable thin wall dripperline is now available in **0.13, 0.15 and 0.20 mm** wall thicknesses. Streamline™ X is an integral non pressure-compensated durable dripline with high clogging resistance for single season applications. Robust from the outside, external ribs protect the dripline from installation damage and keep it safe from cuts and leaks in the field. Robust from the inside, two internal ribs thicken the dripper welding area protecting the dripper from damage during installation and throughout the season.

Model	Available flow rates (ℓ/h)	Wall thickness (mm)
16050	1.10; 1.60	0.13
16060	1.10; 1.60	0.15
16080	1.10; 1.60	0.20