## /ultibar<sup>™</sup> C Rootguard<sup>™</sup>

A subsurface drip irrigation system using Rootguard® pressurecompensating dripline distributes water by capillarity at a depth varying from 10 to 75 cm below the ground, creating a continuous moist area along the plant rows and avoiding the radical intrusion that would cause the occlusion of the drippers.

## Benefits of subsurface irrigation:

Subsurface drip irrigation is the method that ensures the slowest evaporation of water, ensuring an efficiency of at least 95%. Compared to the ground system, with the same amount of supplied water, subsurface irrigation humidifies almost twice as much. It also encourages water movement and reduces percolation losses, which is why subsurface irrigation is recommended in case of sloping land. Moreover, it requires less manpower: easier distribution of fertilizers, reduced presence of weeds and no maintenance.

**Field of application** 



Particularly beneficial for loose soil with little gravel on flat or sloped surfaces. **N.B.:** the product contains synthetic chemicals for weeds control







kiwa IT-TD-Ki0410 Product certified according to

UNI EN ISO 9261:2010





## SUB-IRRIGATION SYSTEMS

## What is sub-irrigation?

Traditional "drip" irrigation systems using driplines are found above the ground. Now, with ROOTGUARD® technology, the lines can be buried below the ground surface for a long, trouble-free life, without drippers being clogged by the root area.

Sub-irrigation allows the precise application of water, nutrients, chemicals and other agrochemicals directly to the root area of the plants, thus reducing the volumes of products used, resulting in reduced costs and environmental impact. This allows users to optimise the crop growing environmental conditions and leads to higher quality and quantity of yields.

A system created using ROOTGUARD® technology conveys water by capillary action down to a depth of 10 to 75 cm beneath the surface, forming a continuous wet area along the plant rows.

Frequent irrigation cycles maximise the capillary action and minimise water surfacing.

The depth and placement of the driplines depend on the soil composition and the crop needs. Focusing on product quality, reliability and ease of use, Irritec with ROOTGUARD® provides the most advanced sub-irrigation technology available on the market today, guaranteeing the best results.



Distribution of water after 10 hours with 1 hour of irrigation

Conveying the same amount of water, drip sub-irrigation covers a 46% larger wet volume of soil than a surface irrigation system. This decreases the saturation point of the soil, not only leaving room for more air, but also improves the capillary movement of the water and decreases water loss by percolation.

ROOTGUARD<sup>®</sup> sub-irrigation system uses the same components of a surface drip system, including filtration and treatment of water, fertiliser and chemical injection, air release valves, discharge valves and manual or automatic control.

The only and most important difference is the dripline manufactured with ROOTGUARD<sup>®</sup> technology.

Today Irritec supplies ROOTGUARD<sup>®</sup> technology together with its popular MULTIBAR<sup>™</sup> driplines.

For the hydraulic characteristics of each dripline please refer to the respective technical catalogues.



The installation and use manual is available on request of the ROOTGUARD<sup>®</sup> sub-irrigation systems, which can also be downloaded free of charge from the website www.subirrigazione.it Furthermore, our technical office can provide the technical support necessary to design and install the ROOTGUARD<sup>®</sup> system.

