



Global climate changes – more areas are exposed to frost events.



Many plants can be damaged or destroyed by frost, when temperatures fall below the freezing point of water.



Protecting crops from frost increases the chances of meeting supply schedules.

SPRING (RADIATION) FROST



Typically occurs during the springtime when a combination of cloudless nights with little or no wind, low humidity and low temperatures generate sub-zero conditions for an extended period of time.

Damage from spring frosts may range from damaged buds or flowers, ruined fruit, poor crop quality and even full tree loss, and can be devastating to farmers and the local economy.

PHYSICAL PROCESSES DURING FROST



Dehydration

During a frost event, ice is created in the outer cells of the plant, causing the plant to lose water and dehydrate.



Morning oxidation

Oxidation of the plant's cells, caused by the sun's radiation (the morning after a frost event).

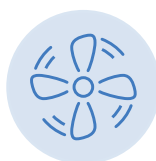


Frost damage - Avocado.
800 Hectare were damaged in
Western Galilee, Israel 2016

COMMON PRACTICES FOR FROST PROTECTION



Heaters



Big Fans



Thermal Nets



Water Sprinklers

FROST PROTECTION BY SPRINKLERS

MAIN ADVANTAGES OF FROST PROTECTION BY WATER



Targets specific zones



Ease of operation



Lower capex



Lower opex

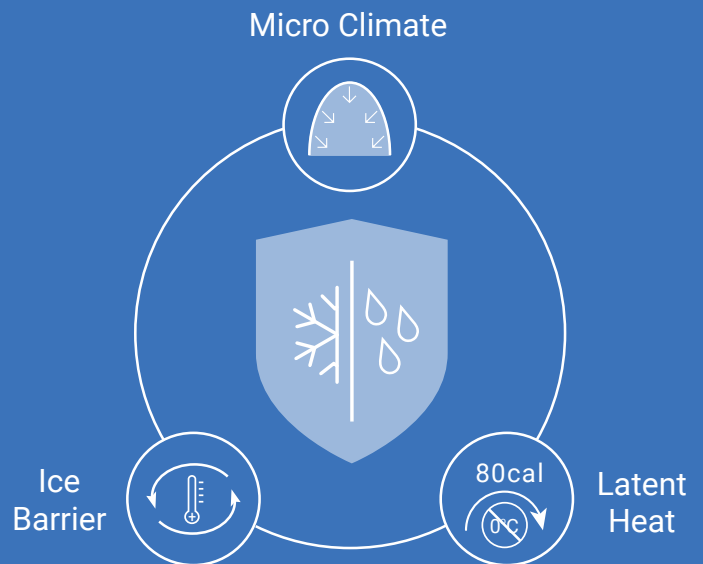


Suitable for multiple applications

HOW DOES IT WORK?

During a radiation frost, crops are continuously sprayed with water above the canopy. This process creates a triple protection:

- Micro Climate around the tree
- Release of latent heat
- Thin layer of ice that protects the inner cells of the crop



THE NETAFIM™ FROST PROTECTION OFFERING

Sprinklers above the canopy

Full coverage

MegaNet™



GyroNet™
Turbo



Localized

GyroNet™

Local/full coverage



SuperNet™

Local/full coverage



High efficiency



Pulsar™ with GyroNet™



Pulsar™ with StripNet™