



# Cubierta Rooftop Urban Nursery, Barcelona, Spain

## Rain Bird® Irrigation Used in Non-Profit, Sustainable Rooftop Garden

Located atop the Mercat de la Vall D'Hebron, Cubierta is an example of innovative urban agriculture and sustainability in the heart of Barcelona. It provides fresh produce to the local food bank all year while adding to the city's green space.

### THE CHALLENGE

The irrigation system for this converted rooftop must provide adequate water for crops without affecting the architecture below. TARPUNA, the nonprofit cooperative that oversees this project, would like to manage all watering from one controller. They also need the ability to monitor flow in order to minimize water consumption, avoid waste, and support environmental conservation. "Irrigation water consumption is the impact that concerns us most in our urban agriculture projects," explains Josep Vallés of TARPUNA.

### THE SOLUTION:

An intelligent Rain Bird® drip system will maximize efficiency by delivering the precise amount of water exactly where it's needed, without leaks or waste. Irrigation plans used for this project will provide a blueprint for more cities looking to increase sustainability, advance towards local food production, and help those in need.



ESP-LXIVM 2-Wire Controller  
with Smart Valve Technology

### Core Products Used:

- [ESP-LXIVM 2-Wire Controller with Smart Valve Technology](#)
- [XFD On-Surface Dripline](#)
- [XF Dripline Insert Fittings](#)
- [XF Fitting Insertion Tool](#)
- [DV Series Valves](#)
- [Control Zone Kits](#)
- [4G Cellular Cartridge](#)
- [FS Series Flow Sensors](#)
- [WR2-48 Series Wireless Rain/Freeze Sensor](#)

### KEY OBJECTIVES

- ✓ **Convenient Management**
- ✓ **Precise Flow Monitoring**
- ✓ **Water Conservation**
- ✓ **Preservation of Historic Architecture**

# RAIN BIRD®

## Site Report: **Cubierta Rooftop Urban Nursery, Barcelona, Spain**

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### APPROACH:

## Maximize Efficiency with Drip Irrigation

The **XFD On-Surface Dripline** system will be the ideal choice to support Cubierta's sustainability goals. This system features kink-resistant XF tubing with pressure-compensating emitters that will provide consistent flow for uniform and reliable performance. **XF Dripline Insert Fittings** combined with the use of Rain Bird's **XF Fitting Insertion Tool** will ensure easy installation and reliable connections without leaks.

## Employ 'Smart' Products

**FS Series Flow Sensors** and **WR2-48 Series Wireless Rain/Freeze Sensors** will further contribute to the project's sustainability initiatives. They will achieve real water savings by cutting off irrigation in the event of rain or a pipe break. IQ™ Central Control technology combined with a **4G Cellular Cartridge** will allow TARPUNA to make additional watering adjustments remotely.

## Enable Convenient Management

An **ESP-LXIVM 2-Wire Controller with Smart Valve Technology** will allow for the automation of up to 60 stations. The controller will send commands and receive information from **DV Series Valves** equipped with **IVM-SOL** without the need for decoders. This will eliminate 50% of wire splices and allow 24/7 visibility into the health of the system. Using **XCZ100PRF Control Zone Kits**—complete with all the components for on/off control, filtration, and pressure regulation—will provide additional savings and convenience during installation.



XF FITTING INSERTION TOOL

**50% LESS Effort Required to Install Fittings**

### RESULTS:

## Growing for Good

Efficient Rain Bird products further Cubierta's mission by conserving water and utilizing space to provide food for families in need. Rain Bird is proud to work with TARPUNA as well as the Horta-Guinardó District and the Barcelona City Council on this innovative endeavor. **Cubierta shows just how much 'good' can be achieved with The Intelligent Use of Water™.**

“ Rain Bird has given us peace of mind and confidence. Rain Bird's technical support has allowed us to develop our project with the latest available technologies and resolve any doubts in the design process and project management.

JOSEP MARIA VALLÉS  
TARPUNA

