

# VG BIOBED™

VERTICAL-GREEN BIOBED

## WHAT IS THE POINT ?

Between 50 and 90% of the pollution of our rivers and lakes through pesticides, come from the preparation and washing of the sprayer equipment. Usually, the harmful substances get directly into our water systems or flow through the sewage purification plants, which are not equipped to handle such pollutants. The collection of this water and its purification through biobeds is a significant benefit for the environment. The VG Biobed, in contrast to the other types of biobeds, does not consume soil, needs only little base area, is aesthetic, produces biomass and can even contribute to the isolation of a building.

## HOW DOES IT WORK ?

Vegetated vertical modules filled with a specific substrate

Reservoir for the phyto-sanitary effluents



Irrigation with the phyto-sanitary effluents

Percolation into the substrate where the pesticide molecules are fixed and degraded by microorganisms

Collection of the remaining water which is re-injected until its complete evapo-transpiration

## WHO IS CONCERNED ?

Any users of phyto-pharmaceutical substances are concerned (farmers, gardeners, park areas in the cities and communities, etc.).

The system can be adapted to an effluent volume between 600 and 100'000 L / year (ranging from the single landscaper to production communities).

## CONSTELLATIONS OF THE SYSTEM



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## STEPS TO THE REALIZATION OF A VG BIOBED

- 1) visit on the farm from an engineer of ecaVert Ltd, in order to estimate the volume of produced effluents and to note the dimensions of possible locations
- 2) for every project, ecaVert Ltd prepares an offer for free, which contains the following:
  - a) a suggestion for the constellation/location of a partial (VG Biobed) or complete (washing area, reservoir and VG Biobed) system
  - b) a corresponding estimate of costs
- 3) ecaVert Ltd can either construct the system itself (according to option "ready-for-use"), or just oversee the construction, if option "deliver & oversee" is preferred
- 4) ecaVert Ltd instructs (with documentation) the operators and can, if desired, take over the maintenance of the system

## COMPONENTS OF A VG BIOBED

- Metallic supporting structure (2 options)
- Metallic components (2 options)
- Drip pans
- Irrigation system with filter, drops, hoses, ...
- Pump which is adapted to the constellation (3 types)
- Programming device and weather sensor Hunter™
- Substrate (enriched with white rot fungi)
- Vegetation (5 proposed types, standard=grass)

## COSTS OF A VG BIOBED STAN-

(enables purification of 2'000L effluents per year)

Option «deliver & oversee» : from 9'800 CHF

Option «ready-to-use» : from 11'800 CHF

## RESEARCH ON THE VG BIOBED



2009 -2010, hepia, studies on the efficiency of the VG Biobed

2011-2014, hepia, studies on the substrate and vegetation of the VG Biobed



2011-2012, Unine, studies on the substrate and herbicide tolerance of the vegetation

## CONTACT & INFORMATION

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