

THE PARTNERSHIP OF 2 LEADERS IN SPRAYING


A 100% FRENCH BRAND

A word of Gérald GERMAIN, chief executive of 

Proposing a common solution with OPTIMA Concept was obvious for our two companies. Indeed, we share a common vision of agriculture today and tomorrow. Each in our respective fields, we hold many patents that make sense for agriculture and that keep improving every day. This is why XeBee is part of our logic of continuous innovation. XeBee is an integrated solution that brings to our user the ability to reduce their TFI by up to 95% and to increase their yield.

Our assets? We have pooled our expertise to have "the right dose in the right place" with nozzle-by-nozzle modulation thanks to an interface controlled by OPTIMA Concept and dosed by Carbon Bee.



A word of Olivier HOUSSARD, chief executive of 

From the outset, technological innovation has been the DNA of OPTIMA Concept. 20 years of ideas, designs, achievements, patents, in a field of experience: Spraying.

It is in this context, following numerous trials, tests and installations carried out jointly with Carbon Bee, that the idea of uniting our expertise around the same brand was naturally born.

We are proud to announce the birth of XeBee, a brand based on a successful Xenius spraying platform and a high-performance Carbon Bee camera weed detection system, the only Spotting solution capable of modulating a rate at the nozzle in real time. Two dynamic and innovative French companies, combining their knowledge, to offer you a technological, user friendly and scalable solution, meeting the challenges of today and tomorrow.

Follow us

 OPTIMA Concept / AgroSystem

 OPTIMA Concept

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 OPTIMA Concept and  CarbonBee present

XeBee

Bee come an **X**pert of weeding

SMART REGULATED
PRESSURE SPRAYING

WEED DETECTION

ULTRA LOCALIZED SPRAYING

 MADE IN FRANCE

2 TECHNOLOGIES COMBINED, ONE REVOLUTIONARY SOLUTION

terminal and its SRP spraying

The XeBee is a top-of-the-range terminal specially designed for multifunction spraying regulation in field crops. It will allow you to prepare and plan your treatments. It features a color touch screen and a tablet menu. Your boom can be equipped with electric nozzles (up to 256).

Benefit from features such as smart regulated pressure (SRP), variable rate, localized intakes, section cut-off by GPS, guidance bar, EasyJoy joystick, drawbar, steering axle, electronic gauge, plot recognition, automated boom height or automated boom ground tracking (ABC)...

Indeed, the XeBee will be the first tool used during spraying work. At the end of it, you will benefit from treatment traceability thanks to the AgroSystem Desktop Application software and the USB interface for simplified updating.

The SRP functionality (Smart Regulated Pressure) maintains an optimal pressure independently from flow, modulates the rate and the drop size, controls and prevents the drift and reduces the risk of nozzle clogging.

An  **OPTIMA Concept** technology

camera and its ultra-localized detection

The XeBee camera is able to detect weeds, discern them, locate them and control the spray system to target them. You can master the targeted treatment, for different treatments: spot spraying for weed control, on stubble (Green on Brown) or in crops (Green on Green), with or without bottom rate, or modulate nitrogen or fungicides on a wide range of crops. The objectives: reduce TFIs, increase yields, especially by reducing the effects of phytotoxicity on crops, and therefore reduce costs and the environmental impact .These capacities can be used both in cartography and in real time to pilot a targeted action.

At the heart of the XeBee camera is a Deep Learning-based artificial intelligence vision engine. This patented technology allows it to learn (weeds, diseases, stress, etc.) with a very small amount of data, allowing it to tackle many crops.

The XeBee camera also contains an instantaneous, compact and resistant hyperspectral sensor, able to instantly capture the spectrum between 300 and 1000 nanometers to provide an extremely precise spectro-morphological signature in the visible and near infrared to discern weeds, estimate biomass or detect leaf symptoms of stress or disease.

A  **CarbonBee** technology



Technical specifications :

camera

- > 1 sensor every 3 meters
- > 700 grams including fixing bracket
- > Adaptable on all types of booms
- > IP69K design
- > Working speed up to 22km/h
- > Inputs reduction up to 95%

terminal

- > TFT 7" High resolution color touch screen, with carousel menu, easy to use
- > Simultaneous display of : real L/Ha, programmed L/Ha, speed, tank level, number of satellites ...
- > Automatic variable rate at the nozzle by XeBee camera or mapping*
- > Flow sensor and/or pressure sensor regulation
- > Automatic GPS plot recognition up to 250 plots
- > Diagnostic menu, accessible at any time
- > USB interface for essay update and maps utilisation
- > Treatments management software, precise and flexible farming
- > Built-in guidance bar
- > Automatic GPS localized intakes*
- > Management of N2, N3, N3P, S2, S3, CC and PWM circulations
- > Automatic boom control using smart BusCAN sensors
- > Built-in drawbar / steering axle
- > Tank electronic gauge
- > Robust and compact aluminium housing (231 x 185 x 37 mm, sealed IP65)

*compatible with shape files



KIT

Example of kit for standard sprayer



Terminal



One camera every 3 meters



OPTIMA Concept electrovalves



SRP INC modules

+ camera controller, connecting cables, junction box and card (in case of XeBee retrofit)