ROBOTICS

Bosch Flourish

PROJECT FLOURISH-DEEPFIELD ROBOTICS 'BONIROB'

The goal of the EU funded project Flourish is to bridge the gap between current and desired capabilities of agricultural robots for precision farming. By combining the aerial survey capabilities of a small autonomous multi-copter a 'Unmanned Aerial Vehicle' (UAV) with a multi-purpose agricultural 'Unmanned Ground Vehicle' (UGV), the system will be able to survey a field from the air, provide detailed information for decision support, and perform targeted intervention on the ground, all with minimal user intervention.

SPRAYER TECHNOLOGY

Agrotop

KIR-O-MATIC

Sensor controlled auto switching system for continuous interior sprayer rinsing. KIR-o-Matic optimises interior sprayer rinsing. Controlling the rinsing jets automatically and with precision, KIR-o-Matic offers a professional and continuous rinsing of the spraying system. The system shortens the rinsing cycles and guarantees optimum use of the diluted spray solution in addition to reducing operator effort and increasing safety and productivity.

SPRAYER TECHNOLOGY

PLA

MAP3 CUADRUPLA

The Argentine Company PLA S.A. presents in Agritechnica 2017 the new model 'MAP 3 cuadrupla'. The spraying equipment is configured to apply up to four solutions simultaneously and/or independently with 23 possible combinations controlled from the sprayer cab.

SPRAYER TECHNOLOGY

KUHN

MULTISPRAY SYSTEM

The MULTISPRAY System model shows the KUHN developed electronic and individual spray nozzle control system. The system is available in various levels of specification that range from individual nozzle control to the MULTISPRAY Quattro nozzle control. The latter allows the system or the operator to control and even combine all four nozzles on the connector from the cab. The system is ready to be used with spray maps.

ASSOCIATION

IVA-Industrieverband Agrar

CAMPAIGN 'SCHAU INS FELD'

The IVA (Industrieverband Agrar e. V.) is a German association that lobbies for the interests of the agrochemical industry in Germany. Its 50 member companies are settled in crop protection, crop nutrition, pest control and bio stimulants businesses. IVA offers farmers relevant information and a range of activities, including a join-in campaign, symposiums on watercourse protection practices and the PAMIRA redemption system.

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AGRITECHNICA

THE WORLD'S NO.

2017

WHERE INNOVATION MATTERS.
12–18 NOVEMBER HANOVER, GERMANY | PREVIEW DAYS 12/13 NOVEMBER

SPECIAL FEATURE

"FUTURE CROP PROTECTION – RESPONSIBILITY NEEDS IDEAS"

HALL 15 STAND G32




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Crop protection – whether mechanical or chemical – is one of the most important activities to ensure successful crop production. It facilitates sufficient production of healthy foods and agricultural commodities.
The following companies present their developments on this topic.

SOFTWARE / DIGITISATION

ISIP

INTERACTIVE PLATFORM OPERATED BY THE VARIOUS STATE CHAMBERS OF AGRICULTURE AND AGRICULTURAL RESEARCH CENTRES IN GERMANY

ISIP provides independent recommendations on cropping and pest control. The service provides weather and field data based forecast models on pest risks and complements the models with extensive surveys that are carried out on representative control fields as well as recommendations from local consultants on suitable strategies

SOFTWARE / DIGITISATION

Fraunhofer ENAS

MICRO SENSOR-TECHNOLOGIES FOR SMART-FARMING

Fraunhofer ENAS presents novel technologies for the fabrication of wireless micro sensor for smart farming. Target applications are monitoring of the growth conditions of crop and vegetables. It is expected that the micro climate and the irrigation conditions will be monitored more precisely and with higher spatial resolution. Dedicated sensor components, communication modules, power supply components and technical approaches to biodegradability and compostability are in the focus.

SOFTWARE / DIGITISATION

Bayer

"SOLUTIONS FOR THE FUTURE" – DIGITAL-FARMING-SOLUTIONS

With their Digital Farming Solutions Bayer offer farmers the opportunity to further optimize crop protection measures. By offering decision support for the optimal timing and the field-zone specific dosing, they make crop protection more precise, easier and more efficient. This is an important component of sustainable farming. Their digital products are being used by farmers in their daily life. Through constant development it is possible to create new solutions continuously.

SOFTWARE / DIGITISATION

EXA Computing

'CROP PROTECTION UNDER PRACTICAL WEATHER CONDITIONS'- EXA W1 WEATHER STATION

It is good agronomic practice to spray only when the conditions are right. The EXA W1 weather station allows operators to document the current weather conditions automatically and on the move. Logging the application rate, ground speed, weather conditions, man hours and fuel consumption is even easier now with the current weather data integrated into the EXATREK machine data analysis app.

SOFTWARE / DIGITISATION

BASF

BASF APP MAGLIS® LEAVE-ANALYSIS

The BASF app Maglis® Leave-Analysis makes it possible for farmers to identify leaf diseases in their early stages right on-site in the field. The farmer takes a picture of the supposedly infected leaf with his smart phone. The app then analyses the symptoms in a few seconds and assigns it certainly to a specific pathogen while at the same time recommending a specific BASF product for treatment.

MACHANICAL PLANT PROTECTION

SCHMOTZER

COMBINATION HOE (18x45 AV5)

The combination hoe by Schmotzer works as a result of under leaf banding and hoeing simultaneously with a reduced amount of chemicals (30%). A quick modular changeover allows different working widths. With the new camera "Okio" it is possible to distinguish between weeds and crops. A hydraulic and parallelogram steering allows precise control on slopes. Toothed discs guarantee a great protection for the younger plants in spite of increased driving speed.

MACHANICAL PLANT PROTECTION

APV-technische Produkte GmbH

'INNOVATION FOR THE FUTURE' – THE VARIO TINE HARROW (VS)

Following the motto 'Innovations for the future', APV takes the next step in developing a new machine for organic farming – the VS Vario tine harrow. Based on a unique system of spring tines, the harrow offers accurate contour following and maximum crop protection. Weed control at high work rates and without chemicals saves high follow-up costs, improves soil life and mobilises soil nutrients. The APV machine is user friendly and a pleasure to operate.

MACHANICAL PLANT PROTECTION

John Deere

TRACTOR INTEGRATED ACTIVE IMPLEMENT GUIDANCE WITH INFIELD AUTOMATION FOR HIGH PERFORMANCE MECHANICAL WEED CONTROL-AUTOTRAC IMPLEMENT GUIDANCE

The new Tractor Integrated Active Implement Guidance with Tractor-Speed Automation enables precise guidance of cultivation tools in row crops through actuated lower links of the tractor and without use of a side-shift mechanism on the implement. In combination with the new tractor guidance solution AutoTrac Vision and with iTEC Pro Headland Management, high-precision mechanical weeding in row crops can be completely automated. This high-speed application is the first real economic and ecological alternative to herbicide application

ROBOTICS

PESCHAK

ELECTRICAL VEHICLE ('ROBOT') WITH CATERPILLAR CHAINS

A tracked electric vehicle ('Robot') was modified to work in the field. These electric and mechanical modifications allow the vehicle to move autonomously in the field. The system relies on a camera that detects crop rows, ridges, or any other crop lines and guides the machine along them. It is also GPS compatible and completes headland turns autonomously. Also changing the battery autonomously, the machine offers 24/7 uptime. A crop detection system which relies on a camera (self-learning algorithms) differentiates between weeds and crops. The system sends the position data of the weeds to a LASER control system which moves the LASER to the exact position for weed removal.