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ART3 Lab

Title	ART3 Lab
Title (native language)	
Category	• Recording or mapping technology • Farm Management Information System
Short summary for practitioners (Practice abstract) in English)	ART3 Lab is a system which can be used for get knowledge of soil and environment enables farms to make accurate decisions. We make collecting and analyzing data better and easier than ever. Solar Radiation – Record the amount of sunlight your plants are getting – Air Temperature & Humidity – Accurate readings are used in evapotranspiration & disease models, Soil Temperature – Useful for root health & sensitive plants, like flower bulb – Soil Moisture every 15cm – Modules can be daisy-chained up to 1.2 meters – Connectivity - Built-in cellular connectivity for uninterrupted data gathering – Energy harvesting - Efficient solar panel and high capacity battery for constant operation. Powerful analytics - Use analytics based on crop, soil type and irrigation valves and get notifications before problems occur.
Short summary for practitioners	

Website	http://www.arateck.com/servicios/agricultura.php
Audiovisual material	
Links to other websites	
Additional comments	
Keywords	Soil management / functionality | Water management | Climate and climate change
Additional keywords	Smart Sensors for the 21st century
Geographical location (NUTS)	ES, EU
Other geographical location	
Cropping systems	Tree crops | Open field vegetables | Vineyards
Field operations	Irrigation
SFT users	Farmer | Contractor
Education level of users	All
Farm size (ha)	0-2 | 2-10 | 10-50 | 50-100 | 100-200 | 200-500 | >500

Company info

Company name	Arateck
Address	Polígono Industrial PLAZA C/ Tarento, nave 20, Zaragoza, Spain
Website	http://www.arateck.com
Patent status	patent submitted

Effects of this SFT

Productivity (crop yield per ha)	Some increase
Quality of product	Some increase
Revenue profit farm income	No effect
Soil biodiversity	No effect
Biodiversity (other than soil)	No effect
Input costs	Some increase
Variable costs	Some increase
Post-harvest crop wastage	No effect
Energy use	No effect
CH4 (methane) emission	No effect
CO2 (carbon dioxide) emission	No effect
N2O (nitrous oxide) emission	No effect
NH3 (ammonia) emission	No effect
NO3 (nitrate) leaching	No effect
Fertilizer use	Some decrease
Pesticide use	No effect
Irrigation water use	Some decrease
Labor time	No effect
Stress or fatigue for farmer	No effect
Amount of heavy physical labour	No effect
Number and/or severity of personal injury accidents	No effect
Number and/or severity of accidents resulting in spills property damage incorrect application of fertiliser/pesticides etc.	No effect
Pesticide residue on product	No effect
Weed pressure	No effect
Pest pressure (insects etc.)	No effect
Disease pressure (bacterial fungal viral etc.)	Some decrease

Information related to how easy it is to start using the SFT

This SFT replaces a tool or technology that is currently used. The SFT is better than the current tool	no opinion
The SFT can be used without making major changes to the existing system	no opinion
The SFT does not require significant learning before the farmer can use it	no opinion
The SFT can be used in other useful ways than intended by the inventor	no opinion

The SFT has effects that can be directly observed by the farmer	agree
Using the SFT requires a large time investment by farmer	no opinion
The SFT produces information that can be interpreted directly	strongly agree

View this technology on the Smart-AKIS platform.

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