Precision Agronomy Initiative Related to Cotton Ginning and Trading in Greece

Name of the Organisations Involved

- Thrakika Ekkokistiria S.A., Greece

Challenges Identified

Thracian Ginning S.A. stands as one of Greece's largest and oldest cotton ginning facilities, situated in north-eastern Greece near Komotini. Established in 1972, it was the sole ginning plant in Eastern Macedonia and Thrace for many years.

Unlike countries such as America, Australia, and Brazil, Greece faced challenges due to fragmented land ownership. Even major cotton producers had plots spread across vast distances, hindering the feasibility of essential investments like weather stations and sensors.

Goals and Solution

Smart farming, focusing on precise energy application, became a priority for the company. Thracian Ginnings aimed at input savings, enhanced yields, superior quality, and reduced environmental impact, opting for smart farming. In 2016, the company implemented the Gaiasense system by Neuropublic, emphasizing good agricultural practices for efficient resource use.

Actions Taken

The company emphasizes precision farming, integrating data-driven insights, technological applications, and sustainable agricultural practices into the cotton ginning process. Taking on the role of intermediaries, Thracian Ginnings initiated intelligent agriculture in Rodopi in 2017/18 using the Gaiasense system. The process involves soil analysis, regular satellite imagery, weather stations, humidity sensors, and insect traps.

Data collected, along with agronomists' input and producers' cultivation records, allows personalized advice on irrigation, fertilization, and disease treatment. Cotton producers pay a modest annual fee, receiving detailed reports for each crop year.

Benefits and Impact

- *For the Cotton Producers (Clients of the Company):* With the overall data collected and the diaries filled in by the company's agronomists, documenting the cultivation care of participating producers, advice is provided to each individual producer on when to irrigate, the appropriate quantity for proper fertilization, and disease treatment. Producers pay a small annual fee. For each growing year, each producer receives a report for their plots containing all the crop data

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(such a report can be viewed here). The data-driven approach has yielded positive outcomes for participating producers, leading to an annual increase in acres involved in the intelligent agriculture program.

- For the Agricultural Sector: The right energy, in the right place, at the right time, and in the right amount. Thus, these practices contribute to the conservation of available natural resources and the optimal use of agricultural inputs. The emphasis on precise energy application contributes to good agricultural practices, promoting resource conservation and optimal use of agricultural inputs.
- For Thracian Ginning Company Itself: Despite economic challenges in Greece, Thracian Ginning has successfully expanded its operations, currently overseeing three ginning plants – two in Rodopi and one in Provatonas Evros. The company's enduring commitment to quality, environmental protection, and innovation remains unwavering.





Contact Information

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Application Area

☒ Soil ☒ Plants ☒ Weather ☒ Resource Usage

Digital Technology in the Value Chain

☒ Agronomic Services ☒ Agriculture Inputs and Services

Digital Technologies

☒ IoT ☒ Sensor Technology ☒ Artificial Intelligence (AI)

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