YARA INCUBATOR FARMS Soil health monitoring: fertility & carbon

Locations: Auburn, AL & Moses Lake, WA







PROJECT OVERVIEW

Our approach involves collecting soil data using advanced techniques such as 1-acre grid fertility sampling, high-resolution SoilOptix® scans, and deep carbon testing at the Auburn site to establish a baseline. Additionally, we employ Solvita® Soil Health tests and leverage TerraSiteRx® VitTellus® charts and access to gain comprehensive insights. Through these comprehensive analyses, our primary objective is to gain a deeper understanding of Soil Health on the Incubator Farms and provide Yara with valuable agronomic and data insights.



"Data Collection will focus on:

changes to soil carbon and evaluation of low carbon inputs

Impacts on the soil biome from regenerative practices

Assessing input use efficiency to maximize crop production and return on investment."

<u>https://www.yara.us/crop-</u> <u>nutrition/incubator-</u> <u>farms/auburn/</u> The previous crop rotation included Corn, Cotton, and periodic Soybean cultivation. Our comprehensive soil analysis involved 1-acre fertility collection and analysis, S1BS2 analysis, SoilOptix scans for detailed mapping, and carbon collection at a depth of one meter (28 samples). Additionally, Solvita Soil Health tests were conducted, and TerraSite VitTellus charts were utilized along with trial access to TerraSite, which includes Maps Books.



The collection services performed on the potato field, situated in a crop circle with a pivot, closely mirrored the procedures carried out at the Auburn, AL site. However, the only distinction was that the meter deep carbon testing was not conducted at this particular location in Moses Lake, WA.

The primary objective is to assist Yara in comprehending the soil health conditions at these Incubator Farm Locations. This understanding will enable them to gain insights into how their products interact with the soil and influence crop growth. The recorded sample locations in TerraSite hold great value as they allow for consistent sampling in the exact same spots over the years, facilitating data tracking and analysis of changes over time. Yara also has the option to independently resample these locations. Additionally, we have provided agronomic recommendations to Yara regarding optimal application rates of various nutrients across the field. The capability to implement variable-rate (VR) fertilization is crucial, and Yara possesses the necessary tools to apply the VR script that we have developed to address the specific needs of the field. Deveron's holistic approach served as the complete end-to-end solution for Yara, addressing all of their in field needs.

Moses Lake, WA 140 Acres

"The 260-acre trials will analyze the role of crop nutrition and practices such as 4R nutrient management in supporting the industry's need to continue to produce highyielding, quality crops, while also implementing solutions to decarbonize the value chain."

<u>https://www.yara.us/crop-</u> <u>nutrition/incubator-</u> <u>farms/columbia-basin/</u>



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