

Wedge makes process analysis easy

The diagnostics tool identifies production bottlenecks without delay

Yara Suomi Oy, a leading producer of mineral fertilizers, is improving and streamlining its production processes. With the Savcor Wedge process diagnostics tool, the company's phosphoric acid plant in Siilinjärvi collects valuable information on its processes and identifies any bottlenecks in the production processes without delay.

– Technical reliability increases safety at work, which we greatly value. When the plant's processes run smoothly, orders are completed on schedule and efficiency is improved in a controlled manner, explains the Siilinjärvi plant's manager, **Taisto Koivumäki**.

Yara operates five plants in Siilinjärvi, in the Northern Savo region: a mine, with its concentration plant, and facilities producing sulfuric acid, phosphoric acid, fertilizer, and nitric acid. How smoothly each unit's production processes run has a knock-on effect on the other plants.

– Between an order and delivery lies the production, which is probably the

most vulnerable part of the process. With the Wedge analysis tool, we can monitor the entire process from start to finish and perform more thorough analysis of the phases where problems occur, says Koivumäki.

Information on efficiency

Yara's phosphoric acid plant tested the Wedge program in 2013, obtaining encouraging results. After this successful test run, the plant decided to acquire the tool for permanent use. If the first year with the new program goes as well as expected, other units too may start using Wedge.

– We are interested in obtaining data on the efficiency of all of the plants and gaining an overall picture of our production processes. This would provide us with valuable information on the entire production chain, from the mine to the fertilizer plant, explains Koivumäki, adding that acquiring Wedge is part of the company's reliability assessment process. Being able to predict any problems that may occur helps to improve the efficiency of production.

– With Wedge, we can select the variables we want to monitor and test their impact on the production process as a whole. We have always received user support from Savcor when we have



Yara operates five plants in the Northern Savo region in Finland.



Savcors Sampo Luukkainen and Erkkä Hautamäki and Annika Viikki from Yara checking the plant.

needed it, even though the tool is really easy to use, Koivumäki says.

Yara's production units have implemented automation systems that record the most important process measurements but do not give access to more detailed information. Wedge, on the other hand, provides information on the relationships between various measurements, which makes it easier to control one process variable in relation to another.

An easy-to-use application

Development engineer **Annika Viikki** is one of Wedge's main users at Yara. She says that the process diagnostics tool makes her day-to-day tasks easier and has also given rise to new development ideas.

– Wedge is extremely easy to use. It has been simple to adapt the application to suit our purposes. We are always looking for the most efficient model for running our production processes, and

Wedge has helped us reduce wastage. The tool also completes the analysis really quickly, she says.

During Wedge's trial run, Yara's and Savcor Oy's application experts joined forces to study the production processes.

– The collaboration has been fruitful and the trainer, **Sampo Luukkainen**, has

understood what we are looking for.

– Our joint workshop sessions have provided us with good tips on how to carry out the analyses and make the most of the tool. My own Wedge skills have come on in leaps and bounds, and I can now use the diagnostics tool to look at even more factors affecting production, explains Viikki.

Plant manager
Taisto Koivumäki.

