



**HONEYWELL  
FORGE**

# A THRIVING PLANT

A South American fertilizer company  
trims energy costs with Honeywell  
Advanced Process Control Background

---

Case Study

---

# FERTILIZER COMPANY GROWS EFFICIENCIES

## FAST FACTS

**10%** Increased efficiency

**1.5<sup>M</sup>** Tonnes of urea annually

**4%** Reduced steam by consumption

## ENRICHING SOUTH AMERICAN SOIL

The fertilizer company from South America is a large organization, producing around 1.5m tonnes of urea per year and is one of the world's main producers of nitrogen fertilizer with daily production capacity of 3,600 tonnes of ammonia and 4,400 tonnes of urea

Like most process control organizations today, this company is faced with challenges in efficiency and energy consumption. They looked to Honeywell, as their established technology partner, for ways to address these challenges.

## SEEDS OF PROFIT

The fertilizer company has installed several advanced solutions from Honeywell including Honeywell Forge Advanced Process Control and Honeywell Forge Enterprise Data Management (Uniformance (R) PHD)

"We chose Honeywell because of the service. Our platform is primarily Honeywell, with services. We work

together as co-workers. I call them anytime and solve problems – that's why we chose Honeywell," said the client.

The main solution, Profit Controller application, a module of Honeywell Forge APC, allows easy implementation of multivariable control and optimization strategies and provides safe control of complex industrial processes. As a result, users benefit from increased throughput and improved production of high-value

products at lower costs.

"The implementation of APC is already showing benefit, even in the project phase. Now in the finishing stage, we are convinced that we will see a return on our initial investment within only two years. When we have the complete application running and tuned, we expect to see increased benefit," the client explained.

## A FLOURISHING PLANT

Improvements include better process stabilization and less operator intervention. The ammonia recovery Profit Controller application, a module of Honeywell Forge APC, has raised efficiency by 10% and reduced steam consumption by 4%. In the two cleaner-water sections, this product maintains a stable steady state condition. A controller in the urea plants maintains the ammonia/carbon dioxide ratio and achieves optimum decomposition by reducing the steam requirement, while in the ammonia plants Profit Controller stabilizes the critical 3:1 hydrogen/nitrogen ratio. Other Profit Controllers are being designed to enhance those already running.

"In a specific section of the plant, we have seven controllers for production. In one APC controller, we have seen an exceptionally good business benefit, proving a real return on investment. Considering this significant achievement, we expect even greater benefits from all seven controllers. We now have the platform to develop more projects and we are in the process of developing three additional APC controllers. The prospects are very good," said the client.

"The best thing in working with Honeywell is the people. To interact with people and see that they really understand us when we ask something is important to us. Their responses are clear not only in selling products, but also in selling solutions," added the client.

## ABOUT HONEYWELL'S PROFIT SUITE

Honeywell's APC product suite products address all aspects of advanced process control and optimization from improving regulatory loop control to globally optimizing the entire process using a unique layered approach. This model allows new technologies to be easily added at any time to a common platform that meets optimization objectives without compromising on future opportunities to improve business performance.

## ABOUT HONEYWELL FORGE APC

This product includes the tools necessary to design, implement and maintain multiple-input/multiple-output (MIMO) advanced process control applications. It has the unique ability to maintain superior process control even with significant model mismatches that result from underlying process changes.

It utilizes a dynamic process control model to drive maximum value by predicting future process behavior. It ensures optimal process control response by using the minimum manipulated variable movement necessary to bring all variables within limits or to set points.

With this product, users not only benefit from project payback periods of less than a year, but also from sustained benefits that exceed the industry norm.



**"INSTALLING AN APC CONTROLLER, OR MANY APC CONTROLLERS, PROVIDES US WITH THE OPPORTUNITY TO SAVE MONEY AND ENERGY – WHICH ARE VERY IMPORTANT NOWADAYS!"**

**- AN EXECUTIVE FROM THE SOUTH AMERICAN FERTILIZER COMPANY**

This case study is for informational purposes only.  
Honeywell makes no representation or warranty.

**Honeywell Connected Enterprise**

715 Peachtree Street NE  
Atlanta, Georgia 3030  
[www.honeywell.com](http://www.honeywell.com)

Honeywell Forge Connect | Rev | 04/2020  
© 2021 Honeywell International Inc.

**THE  
FUTURE  
IS  
WHAT  
WE  
MAKE IT**

**Honeywell**