BETTER BUSINESS ANALYTICS

LEADING FLOUR MILLING OPERATION

Background

A **large flour milling operation** utilizes **several different wheat values** (classified by varying attributes such as **protein content,** water content, etc.) as part of its **manufacturing operations.** Meeting **customer demand** for flour of a specific quality requires a **complex blending** of different classes of wheat. Thus far, this effort had been accomplished via a **manual process,** utilizing a combination of staff **know-how** and excel spreadsheets. The company realized it was leaving money on the table by not blending in an optimal fashion and sought an **automated mechanism** for achieving this task.

The production facility had the following baseline requirements:

◦ Utilization of **multiple wheat mixes** prior to milling

◦ **Strict customer quality specifications** on many mix attributes
(e.g., protein, moisture, etc.)

◦ Inventory constraints **(bin capacities)**

◦ **Wheat preference** constraints for each mix

The Challenge

• **Optimizing** wheat blending while meeting all the required constraints

• **Maximizing market value** of the mix

• Provide a **user-friendly tool** that is **accepted and used** by current plant personnel

OptPro Solution

Working closely with the **plant team, OptTek** developed a **mathematical optimization solution** that, coupled with a digital twin of the **mill grain storage and transfer system,** leverages the **OptPro** core infrastructure software to:

• **Achieve** all of the above **challenge goals**

• **Improve mix value** by 5% (a $29k single-plant **savings per week,** or $1.5M per year)

• Be **actively utilized** by plant personnel with **feedback** that it is very easy to use

Future

Given the **success** with this initial plant, **OptTek** is now **working with this same client** to port the solution to **several other plants** with **similar blending requirements,** enabling savings at those plants, and providing a **great economy of scale of the solution** investment overall.

Further, a future anticipated **enhancement of the solution** will permit the company procurement teams to be **better and sooner informed** of future specific wheat classification **demand requirements,** and therefore be able to make more **cost-effective buying decisions.**

BBA

4684 S Hampton Cir
Boulder, CO 80301

720.987.6111

www.bettersolv.com