



**United Phosphorus Ltd**

## **Case Study**

***Operational Excellence in In-plant Goods movement***



**Conducted by:**

**Vruna Consultancy Services  
Ahmedabad**

## **CLINT PROFILE:**

United Phosphorus Limited is a global generic crop protection, chemicals and seeds company, headquartered in India (Mumbai). Being the largest manufacturer of agrochemicals in India, UPL offer a wide range of products that includes Insecticides, Fungicides, Herbicides, Fumigants, PGR and Rodenticides.

UPL operate in every continent and have a customer base in 123 countries with own subsidiary offices and 23 manufacturing sites (9 in India, 4 in France, 2 in Spain, 3 in Argentina, 1 each in UK, Vietnam, Netherlands, Italy, China). UPL rank amongst the top 5 post patent agrochemical industries in the world.

UPL, Advanta and UEL, the three companies in the group, are listed on the Indian stock exchange, with a combined market capitalization of approx \$ 2.5 billion. The revenue of our Company has grown at a CAGR of 26% over the last 5 years.

Fantastic growth is the result of successful backward and forward integration by taking advantage of the consolidation opportunities within the agrochemical industry. To convert market challenges in to business growth opportunities, UPL management is keen to adopt proven business process improvement methodology and techniques and have a dedicated in-house team specializing in this task.

## **CLIENT NEEDS:**

Suggestion on method improvements and process automation to reduce functioning costs and cycle times by eliminating unproductive activities and optimum utilization of resources. Expected non-tangible benefits like reducing need for management layers, accelerates information flows, and eliminates the errors and rework caused by multiple handoffs.

## **CHALLENGES AND GOALS OF PROJECTS**

To improve productivity and reduce cost, initially management targeted Commercial activities including Logistic, warehouse, Internal goods movement and Finished goods packing & Dispatch. The major challenge was a high imbalanced work profile i.e. very dynamic nature of market demand and hence 'Make To Store' production system, any improvement initiative or process design must support and benefit in each work load condition.

Secondly, the Implication of change management across plants producing same products as many of the improvement opportunities was restricted due to uniform Corporate policy.

At last, many of the work simplification initiatives was demanding major infrastructural change due to old age of plant.

## **How Vrunda consultancy services helped**

First team understood Commercial activity scope, processes and existing work practises and carried out Value Stream Mapping , to assess non value added activities and current allocation of resources. We applied method study to develop the new and improved method of doing job with optimum utilization of resources.

Vruna Consultancy Services partnered with company leaders to implement the suggestions, role mapping, communications, and Change Tracking. The VCS team weekly met project team including plant head, Production head and managers of concern division to advise the improvement actions based on method study outcome, historical data analysis, brainstorming with functional team and feasibility to apply various technical solutions.

Some of our suggestions are :

- a) Overhead storage of Empty Drums and gravity feed supply at point of use.
- b) Permanent pallet cover and caged pallet for goods transportation and clean storage
- c) Application of printing equipment in finish goods packing
- d) Rearranging material gate functioning time and redesigning work station
- e) Relocation of Weighbridge system
- f) Change in forklift operating time and work allocation
- g) Use of existing RFID system for weight confirmation on weighbridge
- h) Use of big trolley for bulk transfer of goods instead of single pallet transportation
- i) Discharging raw material barrels from ground floor by pump instead of manually transporting barrels to the last floor and then discharging

Expected benefits after successful implementation of suggestions are :

- a) Reduction in empty drum handling cost
- b) Reduction in packing material and handling cost of Acephate
- c) Reduction in printing & labelling material and labour cost, eliminating printing human error, quick and easy work method
- d) Reduction in vehicle inward - outward queue and vehicle detention
- e) In-plant vehicle movement reduction and easy & error free functioning of the weighbridge system
- f) Reduction in number of forklifts
- g) Elimination of unnecessary movement of drivers and waiting of vehicles
- h) Minimizing forklift movement and internal road traffic
- i) Eliminating raw material issuing labour cost, material lift and chemical handling hazards

Expected monetary benefits after successful implementation of suggestions are : Rs. \_\_\_\_\_per year.