

PULSE Agriculture Management System

For Sugar Industry



REDUCE TIME FROM "CUT TO CRUSH"

System designed to minimize "Cut to Crush" time and thereby increasing "% recovery of sugar" from sugarcane, by eliminating post-harvest sucrose losses.



COST OPTIMAL

Due to reduction of cost for manpower, losses due to errors, enhanced productivity, yield and quality, with timely alerts.



SECURE

Through stringent checks and balances across the process.



INTEGRATED

Seamlessly across the enterprise with SAP ERP, Weighing System, and other systems, bringing in standardization across the enterprise.



FARMER DELIGHT

By eliminating scope for malpractices, bringing transparency in weighing and enhancing farmer-factory connect.



CMMIDEV / 5SM

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*"Delivering Quality Products And Services
Through Innovative Usage of Technology"*

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The Need

Farmers are concerned about the productivity and quality of their crop, requiring a planned and consistent approach from soil assessment to ensuring a healthy crop. Further delivery farmers are concerned about transparency as the reliance on operators, presents an opportunity for willful or inadvertent errors during weighing and validity check.

Similarly, factories dependent on the farmers for sugarcane, also face challenges in terms of quality, predictability and consistency of the sugarcane to ensure continued and uninterrupted production.

Even where the company owns the farms, there is a critical requirement for optimally enhancing the productivity and yield, both in terms of quality and quantity. This entails stringent monitoring and control right from cultivation, through maturing and supply for onward production.

What is PULSE Agriculture Management System

PULSE AMS is a specialized solution designed for managing the complete life cycle of its crop for sugar factories. This software enables sugar companies to manage good quality, consistent, adequate, and on-time supply of sugarcane, addressing all aspects of cultivation, monitoring, maturity, harvesting and financials, including loans and payments to farmers as well as harvesting contractors and transporters, on a consistent and sustainable basis.



Manual System

Most sugar mills working on manual or semi-automated systems can be beset with potential risks ranging from slippages in the process, duplications, to willful frauds and accidental errors. Due to the high degree of dependence on the knowledge, experience and skills of individuals, as well as on systems fully or partially disconnected from the rest of the plant operations, each stage can have additional bottlenecks and gaps.

Drawbacks

- Disconnected systems leading to multiple entries and duplications, increasing potential for errors, slippages and data conflict.
- High dependence on individuals.
- Difficult to assess, reference or trace transactions across the life cycle for each crop delivery.
- Inadequate clarity and transparency leading to lowering of trust between farmer and factory.
- Time lags between each stage leading to delays in payment.
- No comprehensive view of crop and visibility of delivery, or real time alerts, posing potential for losses.
- Non-availability of timely data collection and integration into central ERP and other systems poses the risk of information being suspect.
- Post-mortem information rather than informed decision making.
- No single view of the enterprise process for management decision-making.

Process Overview

Amity PULSE Agriculture Management System for Sugar industry



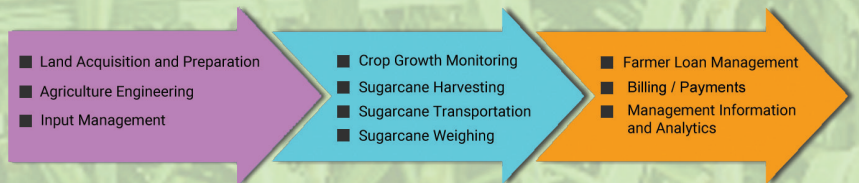
Amity's PULSE AMS is the most comprehensive and robust Agriculture Management System currently available worldwide for Sugar companies. It addresses end-to-end agriculture related requirements of sugar factories, right from land recruitment to payment to farmers against their sugarcane supply. PULSE AMS combines the industry best practices with the specific needs of the location based on factors related to geography and climate. It is also customized to take care of government regulations in that specific state/country.

PULSE AMS ensures maximum production yield at best quality, ensuring timely inputs, close monitoring and efficient operations, consistently and predictably. The system ensures optimized utilization of the field staff, by providing relevant information, in time, enabling remedial measures, eliminating errors and averting losses. Designed for 24x7 operations, PULSE AMS offers a field-proven, scalable, transparent and sustainable solution with minimal dependence on human interface and maximum utilization of automation.

PULSE AMS drives in efficiency in operations as a planned and streamlined process with each stakeholder, and at each stage of the workflow, seamlessly executing its function to ensure end-to-end and uninterrupted supply of sugarcane in the plant.

The system also allows for course correction, remedies and interventions, as and when any emergent or ad-hoc situation arises, through close monitoring and timely alerts. At all the critical stages, quality checks are undertaken to enhance the health of the seeds.

Key Components



Key Features and Benefits

- **Best Business Practices:** For managing the complete, end-to-end crop lifecycle.
- **360 Degree Control:** Provides complete control on the crop to ensure maximum yield from each field covering all the aspects - computing quantities of inputs, like seed, fertilizer, pesticides, scheduling, harvesting, planning for labor, and organizing transport.
- **Reduces "Cut to Crush"** time interval to maximize sugar recovery.
- **Improved Factory-Farmer Connect:** Brings transparency and complete traceability of the crop right till the individual field.
- **Cost Optimization:** Optimizes all processes, in order to minimizing manpower and material inputs, and saving of time and cost.
- **Integration With SAP and other renowned ERPs:** Seamlessly interfaces with ERP solutions to ensure an integrated system.
- **Valuable Analytics:** PULSE AMS enables better decision-making, providing valuable analytics and information on a timely and consistent basis.

Land Acquisition and Preparation



- Outgrower Management**
- Outgrower and Plot Registration
 - Farmer Contract
 - Pre-planting Assistance
 - Seed Procurement & Delivery
- Nucleus Estate Management**
- Land Purchase, Leasing and Contracting
 - Pre Planting Activities
 - Seed Procurement & Delivery

Crop Management



- Agriculture Engineering**
- Machinery Management
 - Land Preparation Program
 - In Field Road Maintenance
 - Vehicle/Machinery Expenses and Efficiency
- Input Management**
- Seed Supply Management
 - Fertilizer and Pesticides Supply Management
 - Water Supply Program
 - Crop Activity Calendar
 - Data captured in Field using Mobile Phones/Tablets
- Crop Growth Monitoring**
- Crop Activity Calendar
 - Crop Growth Monitoring
 - Crop Maturity Analysis
 - Data captured in Field using Mobile Phones/Tablets
- Harvesting**
- Harvesting Calendar and Daily Harvesting Program
 - Harvesting Labour Management
 - Harvesting Contractors Accounting
 - Harvesting Labour Payroll
 - Data captured in Field using Mobile Phones/Tablets

Despatch and Delivery



- Transportation**
- Vehicle management
 - Allocation of Transporters & Vehicles
 - Transport Program
 - Transporters Accounting
 - GPS Tracking of Vehicles
- Weighbridge**
- Quality Inspection
 - Gross and Tare Weighing
 - Unloading Verification

Post Delivery Operations



- Billing / Payments**
- Agricultural Services Billing
 - Seed/Fertilizers/Pesticides Billing
 - Farmer Loans and Advances
 - Interest Computations
 - Farmer Payments
 - Bank Payment Electronic Transfers
- Others**
- Farmer Web-site and Mobile App Management Dashboard
 - Extensive use of Mobile Phones / Tablets / Hand-held Terminals - all data captured at source itself
 - Includes Complete workflow for all activities of Agriculture department
 - SAP certified integration with SAP core modules

About Amity

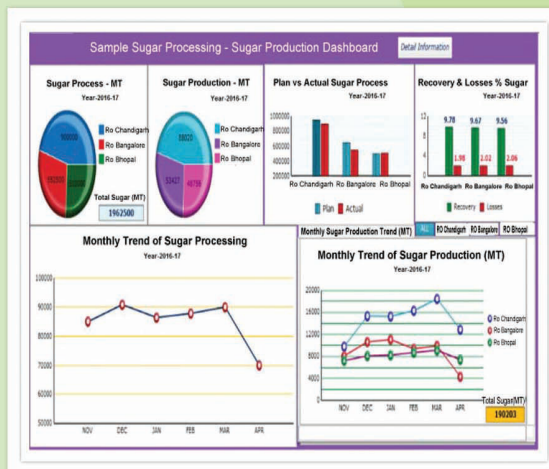
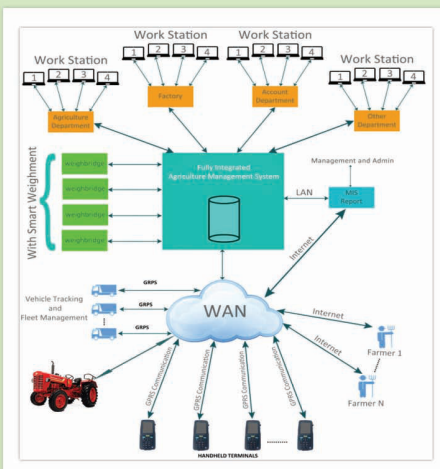
Amity Software was founded with a focus to provide technology driven solutions in line with industry best practices. Pioneers in providing Software & Smart Card technology based products and solutions, Amity's solutions are tailored to meet the specific requirements and in use across a wide range of industries including Sugar, Steel, Cement, Agriculture, Insurance, Retail, Health, etc.

We are SAP implementation partners for US, India and East Africa. Our expertise and experience is specially geared for the end-to-end execution of projects, from Conceptualization, Design, Solution Architecture, Process Re-engineering, Development, through till Installation, Testing and Commissioning. Our project execution methodology is backed by matured processes and secured work methods, as is evidenced in our CMMI Level 5, ISO 27001 and ISO 20000 certifications.

At the leading edge of System Integration Technologies, our success hinges on our unparalleled domain expertise spanning diverse industry verticals, in each of which we have designed and implemented path breaking, first-of-their-kind, mission-critical solutions. Amity enjoys a reputation for developing innovative turnkey customized solutions, delivered on time and within budget. Testimony to this lies in close to 100% of our customers, from across user segments, industry verticals and geographies, entrusting us with ongoing and repeat business.

Our Clients (Sugar industry)

- Kwale Sugar (Kenya)
- Sukari Sugar (Kenya)
- Kakira Sugar (Uganda)
- Mahalaxmi Sugar (Nepal)
- Birla Group (6 Mills)
- Daurala (U.P.)
- Dwarikesh Sugar (U.P. - 3 Mills)
- HPCL Biofuels Ltd. (2 Mills)
- KM Sugar (U.P.)
- Renusagar (U.P. - 3 Mills)
- Swaraj Agro (Maharashtra)
- Vanshika Sugar (M.P.)
- Mumias Sugar (Kenya)
- Transmara Sugar (Kenya)
- Eastern Sugar (Nepal)
- Sriram Sugar (Nepal)
- Captainganj (U.P.)
- Daya Sugar (U.P.)
- Gopalganj (Bihar)
- Indian Potash Ltd (5 Mills)
- Nahar Sugar (Punjab)
- Riga (Bihar)
- Tikola (U.P.)
- Yadu Sugar Group, Bihar (2 Mills)
- Nzoia Sugar (Kenya)
- West Kenya Sugar (Kenya)
- Everest Sugar (Nepal)
- Aira (U.P.)
- Cooperative Factory, Gujarat (6 Mills)
- DCM Shriram Industries (3 Mills)
- Gurdaspur (Punjab)
- Kareli Sugar (M.P.)
- Naraingarh (Haryana)
- Sasamusa Sugar (Bihar)
- Triveni Group (7 Mills)
- Yamunanagar (Haryana)
- SONY Sugar (Kenya)
- Kabuye Sugar (Rwanda)
- Himalaya Sugar (Nepal)
- Bajaj Group (12 Mills)
- Dalmia Group (4 Mills)
- Deorahi (U.P.)
- Harinagar (Bihar)
- Karnal Cooperative (Haryana)
- Piccadilly Sugar (Punjab)
- Simbhaoli (3 Mills)
- Uttam Group (4 Mills)



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