



HARVEST *it*[™]
(Integrated Plantation Management Software)

RUBBER FEATURES

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OVERVIEW

iSmart Business Solutions (P) Limited is a software development and consultancy firm that provides integrated solutions for the food and agribusiness industry that enables customers to use information as a strategic planning tool. **iSmart** plans to become the World Leader in providing value added Business Solutions for food and agri business worldwide.

The current flagship product of the Company, **HARVEST it™** is the culmination of more than 1000 man-years of cumulative development effort over the past 20 years.

HARVEST it™ is an integrated multi-platform package that meets the needs of virtually every aspect of the plantation industry. **HARVEST it™** supports multi-crops and multi currency, thus facilitating usage in plantations all over the world. **HARVEST it™** has an integrated, modular architecture design, is available on varied hardware platforms and operating systems, and is a user-friendly system designed for plantation environment. All the modules of **HARVEST it™** are Windows-based and developed using the client - server architecture. **HARVEST it™** is customized for different crops such as – Tea, Coffee, Rubber, Oil Palm, Flower, Vineyards, Tobacco, Sugar, Cardamom, Coconut and other minor crops.

Given below is a brief description of the modules offered by **HARVEST it™** relevant to a **Rubber Plantation Industry**

MODULES AVAILABLE AT THE ESTATE LEVEL

PAYROLL

The Payroll module of **HARVEST it™** is multifunctional. The System looks after the salaries and wages of the Upper Tier and Lower Tier employees at the Estate Level. It also contains the details of the field latex and coagulum collected by each tapper to determine the productivity of both the Estate and the tapper. It captures field-wise data so that the performance of individual blocks can be compared for a grass root analysis of the reason for low productivity or non-performance. For the Lower Tier, since the remuneration may be slab/task based, the System will incorporate field classifications as determined by the Industry and execute the complex calculations required to arrive at the wages to be disbursed.

Besides handling Attendance, the Payroll System tracks and monitors all statutory and fringe benefits and other incentives. It generates pay slips as well as a plethora of productivity and statutory reports. It also keeps track of the employees' personal details and history.

List of Reports

- Pay Slip
- Single line Pay slip
- Payment Voucher
- Denomination
- Gratuity List
- Bank Payment Advice
- Pay Summary
- Job Expense Statement
- Journal Voucher
- Recovery Statement
- Over-time
- Holiday Wages
- Cash Advance
- Annual Leave Register
- Loan Details
- Daily Job Expense Statement
- Productivity Profile

Attendance Records

- Check Roll Book



- Daily Attendance List
- Attendance Details
- Attendance Summary
- Attendance Summary – Job wise
- Attendance Record – Lent Labour Check List
- Lent Labour Overtime Check list
- Multi Attendance List
- Labour Distribution Reports
- NIL Attendance List
- Absenteeism (Based on Leave marked)

Statutory Reports

- PF Returns
- Total Earnings

Updation

- Accounts Updation

Inventory Management System

The Stores module of **HARVEST it™** maintains stock at the estates and divisions. The System permits any four types of stock valuation methods viz. – Monthly, Daily Weighted Averages, FIFO or Monthly General rate. The User can define as many additional charges as needed which can be posted either to stock or account. Allowance can be maintained either item-wise or account-wise. Both Local and Head Office purchases are possible. There is a provision for Sanctioning or Rejecting Issue and Purchase requisitions. An Automatic Stores Issue Requisition (SIR) closing is possible after a predefined number of days. The System allows both Scrap Sales and Differential Rate Issue.

Debit notes and Credit notes can be generated by the System. Stock Adjustment can be done either for Value or for Quantity. It can produce reorder warnings either at the start or through a report. It is capable of generating all the required reports that are needed for monitoring and controlling the System. It can generate a Budget Variance report, Pending LPO and Purchase Requisition report, ABC Analysis, Ageing Analysis and SIR status among several others. This module is linked to the Central Stores module that coordinates procurement of items after validating the stock position at all estate stores.

List of Reports

- Stores Requisition
- Stores Issue Note

- Goods Received Note
- Class Wise Stock
- Closing Stock
- Stock Statement
- Stock Ledger
- Detailed Material Consumption
- Bin Card
- Direct Purchase
- GRN Register
- GRN without Invoice
- Direct Issue Details
- Purchase Register
- Direct Consumption
- Reorder List
- Stores Journal
- Expenditure Summary

Process & Updatations

- Stock Valuation
- Accounts Posting

Rubber Production

The **HARVEST it™** Rubber Production System is used to record and maintain details of sheet and crepe production in the factory. It keeps track of various processes like types of crop arrival, standardization, coagulation, milling, milling-split up, grading, packing, invoicing, despatching, sales updation, grade conversion, etc. The System also monitors electricity consumption, machinery breakdown, meteorology, process labour, sub store maintenance, stock verification, etc.

List of Reports

- Rubber Manufactured
- Garden Invoice
- Factory Book
- Bin Card – Gradewise
- Sales – NSA Statement
- Sales – Sales Register
- Sales – Sales Summary
- Fuel Stock
- Material Stock
- Fuel Consumption

- ❑ Man Power Utilization
- ❑ Metrolac Slab
- ❑ Invoice Register
- ❑ Checklists – Masters/Transactions
- ❑ Additional Reports – Capacity Utilization
- ❑ Additional Reports – Supplier Wise Bought Latex
- ❑ Additional Reports – Supplier Variance Analysis
- ❑ Additional Reports – Supplier Balance Statement
- ❑ Additional Reports – Bought Latex Chit
- ❑ Additional Reports – Outgrower Journal Report
- ❑ Additional Reports – Packed & Awaiting
- ❑ Additional Reports – Rubber Invoicing Report
- ❑ Additional Reports – Denomination Report
- ❑ Additional Reports – Recovery Statement

Rubber Production (Centrifuge & Crumb)

The latex collected from collecting stations is transported to the C.L. factory in tankers and entered into the system as Arrival. If suitable for centrifuging, sampling from the tanker will be taken by the vehicle assistant. If it is not suitable it will be diverted for skim crepe production. Weighted latex tanker is unloaded into clean reception tanks and the empty tanker will be weighed to derive tare weight. Sampling from the full reception tank will be done by the Quality control lab. As per the instruction from Quality control lab, water and other chemicals are added followed by stirring. After adding these chemicals, it goes through a process of 'Settling' where stirring is stopped and kept idle. Settling Time register is maintained to record the time details of settling. Settled field latex is fed into latex centrifuging machines. Due to the centrifuge process, **unstandardised cenex** is passed to Storage Tanks (ST) and **Skim latex** stored in the De-ammoniation tank. The System records stage wise process transfers with dates. All quality control parameters are monitored against standards preset in the System.

Unstandardised Cenex

Unstandardised Cenex is ammoniated and with additives like water and soap, kept in storage tanks as Standardised Cenex. It is then packed and sent for stencilling and stored as finished goods. Here again QC parameters are monitored by the System at every stage.

Skim Latex

Coagulation process is done for Deammoniated skim latex. The collected Coagulum is milled by rough rollers and a rough crepe is formed. This rough crepe will again be milled through fine rollers for making skim crepe. The Wet skim is then hung out to dry under normal air conditions which later on turns into dried skim crepe. The dried skim crepe is weighed into 50 kg bundles and kept in store as finished goods. The System keeps a track of quantities, outturn parameters, dispatch instructions and documentation.

Crumb Rubber Factory (ISNR)

Tree lace and cup lump are the raw materials used for manufacturing ISNR also called Crumb rubber. Stored scrap rubber is soaked in a Soaking tank mixed with water. It then passes through pre-breaker machines to be cut into pieces. Next, it is passed through milling machines to make sheets. Sheets are treated in a hammer mill and then sent to the Drier. Once dried, the sheets are hydraulically pressed into 25 kg bales. These are classified into different grades such as ISNR-10, ISNR-20, and ISNR-50, ISNR-OFF, etc. All these grades are then kept in the factory store as finished goods for subsequent dispatch. The System keeps a track of quantities, outturn parameters, dispatch instructions and documentation.

Nursery System

The Nursery module of **HARVEST it™** helps to record and monitor the growth cycle of the plants in a Rubber nursery. In this System, the nursery area is divided into beds. Seedlings or clones are clubbed as batches and each batch is nursed through different growth stages before they attain maturity for planting. It captures all the nursery operations of planting, spraying, weeding, manuring, watering, budding, restacking, culling, census, etc. It generates reports that can keep track of the history of each individual batch.

List of Reports

- Stock Statement:
- Bed wise Stock Statement:
- Clone wise Stock Statement:
- Nursery Upkeep Statement:
- Issue Register:
- Transfer Report

Fleet Management and Workshop System

The Fleet Management module of **HARVEST it™** keeps a track of the operational performance of all the vehicles on the estate. By recording the daily running, fuel consumption and cost of repairs and spares, the System can indicate the running cost per km or hour of each vehicle. It handles details such as Vehicle Requisition, Vehicle Allocation, Daily Log book, Fuel and Oil consumption, etc. The workshop function offers job order cards, work and delivery schedules and service costs.

List of Reports

- Daily Log
- Fuel & Oil Consumption
- History of Asset
- Machinery Register
- Machine Wise Expenditure
- Cost Analysis
- Labor Cost
- Operational Cost
- Service Schedule
- Performance Analysis
- Section – wise To Date Job Cost
- Cost Distribution Statement
- Running Cost
- To – Date Running Cost of vehicles

Checklist

- Job Cost
- Job Cost – Detail
- Vehicle Running Expenditure
- Vehicle Running Accounts
- Monthly Comparison of Vehicles
- Existing Vehicle Utilization
- Vehicle Comparison Statement

Hospital System

The Hospital module of **HARVEST it™** is designed to take care of all functions related to a garden hospital. It maintains the stock of medicines with an eye on issues and expiry dates. The various features covered by this module include OP and IP functions, diagnoses, prescriptions, diet, immunization, birth and death records, family planning, advance payments, outside referrals and expenditure analyses.

List of Reports

- OP Registration Report
- IP Registration Report
- Patient History-Diagnosis Details
- Medicine Issued-Medicine Purchase
- Immunization Report
- Doctor wise Collection
- Family Planning Details
- Inpatient Statistic-WHO (World Health Organization) Standards
- Hierogram Report
- Lab Report
- Accident Report
- Recovery Checklist Report
- Discharge Summary Report
- Referral Cases
- Expiry Medicine List
- Other Expenses Report
- Infant Mortality Register
- Disease Based Report
- Maternity Mortality Register
- Birth/Death Rate Register
- Statistical Reports- Birth Register Report
- Statistical Report-Death Register Report
- Product-Purchase Order
- Purchase Order-Pending
- Purchase- Purchase Requisition
- Purchase Requisition Pending
- Goods Received Note
- GRN Return
- Issue Report (Date Wise)
- Transfer Report (Date Wise)
- Medicine Stock Report-Opening Stock
- Current Stock (Item Wise)
- Medical Stock Report-As on Date

Checklists

- Doctors
- Hospital Staff
- Referral Hospital
- Ward
- Department
- Specialization

- Immunization
- Disease Type
- WHO Standards
- Common Disease
- Lab Test
- Discharge Type
- Diet Type
- Diet Item
- Labor Line
- Health Card
- Family Planning
- Inventory Location
- Item
- Class
- Duplicate Issue

Financial Accounting System

The Accounts module of **HARVEST it™** takes care of every accounting need at the Estate. Besides regular accounting functions, the System offers features like accounts grouping in 10 levels, several documents like Petty Cash, Cash On Hand and different bankbooks. It allows for a provision for reconciliation of Bank, Debit/Credit note, Inter Location Documents. It allows a foolproof method against manipulation of accounts. Users can be defined under Sanctioning authorities with the authority to sanction predefined amounts. **HARVEST it™** Accounts supports multi- location and multi currency requirements. It also provides a Mini Budget as part of the same module.

List of Reports

- Documents – Cash Book / Bank Book / Journals
- Documents - Debit & Credit Notes
- General Ledger
- Trial Balance
- Sundry Creditor and Debtor Balance
- Cheque Printing
- Document Balance Statement
- Bank Reconciliation Statement

Final Account Reports: -

- Trading & P/L, Balance Sheet & Cash Flow

Budget System

The Budget module of **HARVEST it™** helps to prepare and maintain estimates of activities on the estate. The module considers the need for budgeting in four areas viz. Output Targets, Operation Expenditure Estimates, Sales Targets and Anticipation of Profitability.

HARVEST it™ allows the User to estimate all expenditure and income in terms of three elements - Man, Material and Money on an activity wise and field wise bases. Both annual and monthly budgeting is possible. The System classifies operating expenditures into Variable and Fixed expenditure based on their nature and frequency of recurrence. Budget revision can be done either half-yearly or as desired.

List of Reports

- ❑ Crop Statement
- ❑ Crop Projection
- ❑ Crop History
- ❑ Fertilizer Program Summary
- ❑ Fertilizer Program details
- ❑ Pruning Program Summary
- ❑ Pruning Program Details
- ❑ Subordinate Staff Cost Summary
- ❑ Subordinate Staff Cost Details
- ❑ Cost of Production – Summary
- ❑ Budget Summary
- ❑ Man days Distribution Chart
- ❑ Material Distribution Chart
- ❑ Other Worksheets Summary

Management Information System

The MIS module is installed at the Estate or Group level. The System integrates essential data from all the estate modules and provides the essential information required by the Manager in the form of daily or monthly reports. These reports help the Estate Manager in taking right and timely decisions for better control of estate operations. The intention of the System is to give all the relevant information to the manager, in order to do away with the wastage of resources in all forms. The Estate MIS helps in the comparison of performance in order to isolate the root cause for



lack of productivity, eliminate it and enhance production and productivity. This helps significantly in bringing down the Cost of Production.

List of Reports

- ❑ Progress Report
- ❑ Cost of Production – Estimate Vs Actual
- ❑ Cost of Production – SMLY Vs Current Month
- ❑ Cost of Production – Field Wise COP
- ❑ Cost of Production – Cost of Production at any Time
- ❑ Variance – Labour and Material – Estimate Vs Actual
- ❑ Variance – Labour and Material – SMLY Vs Current Month
- ❑ Estate Performance
- ❑ Immature Expenditure
- ❑ Labour utilization
- ❑ Weight Comparison Statement
- ❑ Crop Variance
- ❑ Yield Per Hectare
- ❑ Crop & Yield Statement
- ❑ Crop, Intake/Tapper Statement
- ❑ Field History (Estate Diary)
- ❑ Immature Fields
- ❑ Gradewise Despatch
- ❑ Gradewise Production
- ❑ Genset Efficiency
- ❑ Harvester Deployment
- ❑ Daily Temperature Statistics
- ❑ Crop Reconciliation Statement
- ❑ Additional Reports – Tapping Analysis
- ❑ Additional Reports – Factory Progress Report
- ❑ Additional Reports – Daily Tapping/Field Progress Report
- ❑ Additional Reports – Overall Performance Report
- ❑ Additional Reports – Detailed Daily COP

MODULES AVAILABLE AT THE HEAD OFFICE LEVEL

Executive Payroll System

The Executive Payroll module of **HARVEST it™** takes care of the Salaries and Allowances of the top management. The System also handles the Executive's history besides recording promotions and transfers, allowances including vehicle, bungalow and other benefits, Provident Fund, fund transfer to personal accounts, cheque printing/cash payment, remittance cheques, loans and leave details. It generates yearly statutory statements and enables bank transactions of the employee to be done through the Company's accounting department. It can have 'n' numbers of allowances and deductions, Bank and Cash Payments, Benefit calculation, Income tax statement, Accounts updation, Leave maintenance, Loans and other Deductions.

List of Reports

- Pay slip
- Pay slip Summary – Department wise/Category wise /Location Wise
- Bank Advice - Department wise/Category wise /Location Wise
- Earnings List
- Tax Benefit list
- Recovery – Head wise / Summary
- Overtime – Detail / Summary
- Statutory Reports
- Loan Report – Loan wise / Employee Wise
- Employee Control List

Order Processing System

Order Processing module of **HARVEST it™** facilitates the systematic processing of the Purchase Orders to the Suppliers from the Head Office. After Purchase Requisitions are received from the estates the System combines and sanctions them under the defined authority. After sanctioning the Purchase Requisition, tenders to Suppliers are requested using the Enquiry screen facility. It controls the purchase of items at various estates by scrutinizing the Purchase Requisitions and the tenders. It allows the User to define Ageing Brackets, against defined terms and conditions, different types of Purchase Orders, supplier wise, item price and set-up of sanctioning authority.



List of Reports

- PR Register
- Pending PR
- Ageing For PR
- PR Delay Register
- Scroll PR
- Purchase Order Register
- Pending Purchase Order
- Ageing For Purchase Order
- Purchase Order Amendment
- Major Purchase
- Approved Supplier
- Lead Time Analysis
- Price Trend Analysis
- ABC Analysis
- Mailing List

Bills Management System

Bills Management module of **HARVEST it™** is a system that is capable of automating all the tedious processes involved in the processing of payables and receivables. It keeps track of all the supplier invoices and related documents, creditors & debtors' balances right from their generation to the final payment or receipt. In general, the bills could be broadly classified as Payables and Receivables. The System allows the flexibility for defining different Bill Categories, Ageing of Bills, General Payment Terms, supplier wise payment terms, additional charges and linking them to account heads.

List of Reports

- Advance Receipt & Payments
- Receivables & Payables
- Adjustments
- PAN Generation
- PAN Cancel
- Receipts
- Payments
- Bill Register
- Additional Charges Register
- Unsanctioned Bill Register
- Sanctioned Bill Register

- Receivables
- Payables
- Term Wise Payables
- Unpaid Invoices
- Unassigned Advances Reports
- Advance Adjustment Register
- PAN Report
- Payment Advice
- Outstanding (Detailed)
- Outstanding (Summary)
- Ageing Analysis (Ageing Bracket Wise)
- Ageing Analysis (Supplier Wise)
- VAT Summary
- Statement of Accounts
- Sales Ledger Control Account
- Debit Ratio Report
- Discount Summary Report

Fixed Asset

All capital items and projects are monitored and maintained by the System. In the case of projects, it tracks work in progress until completion and capitalization. It provides for asset addition, revaluation and invoice generation, taking care of any forex gain or loss through transaction. The System has provision for AMC status and renewal, wherever required. It takes care of asset maintenance, transfer of an asset to different locations and disposal. It calculates depreciation using Straight Line or Written Down Value methods along with rate setting and accounts posting.

List of Reports

- Depreciation Summary
- Disposal Details
- AMC Register
- Asset Schedule
- WIP

Process

- Depreciation Calculation

Consolidated Accounts

The Consolidated Accounts module of **HARVEST *it***[™] consolidates and provides the accounts of all the estates within the Company at the Head Office. This is done through the data transfer facility. No manual data entry is needed in this System. It is capable of generating several reports such as Consolidated Trial Balance, Consolidated Profit and Loss and Consolidated Balance Sheet. The Company's performance is measured by the outputs obtained from the Consolidated Accounts System.

List of Reports

- ❑ Estate/Group to consolidation at voucher level/General ledger level
- ❑ Consolidated Trial balance
- ❑ Consolidated ledger
- ❑ Consolidated Balance sheet, Profit and Loss account
- ❑ Schedules
- ❑ Vouchers, Cheque printing
- ❑ General ledger, Sub ledger
- ❑ Cash book, Journal book
- ❑ Reconciliation

Consolidated Budget

The Consolidated Budget module of Harvest *it* helps to prepare and maintain estimates of activities involved in a Plantation set-up. This system allows the user to estimate all expenditure and income in terms of three elements - Man, Material and Money. **HARVEST *it***[™] considers the cultivation activities to be happening in small geographical areas called fields. The estimate to be prepared is a detailed field wise or estate wise budget. The system classifies operating expenditure into Variable and Fixed expenditure based on their nature and frequency of occurrence.

List of Reports

- ❑ Crop
- ❑ Expenditure
- ❑ Cost of Production
- ❑ Profit/Loss per Kilo
- ❑ Profit/Loss in Amount
- ❑ Budgeted Activity wise Mandays
- ❑ Budgeted Activity wise Expenditure
- ❑ Profit/Loss Summary

- ❑ Budget Final
- ❑ Expenditure, COP & Manday Statement
- ❑ Crop & YPH Statement
- ❑ Labour, Material & Other Cost Statement
- ❑ Field Performance

Executive Information System

The Executive Information System of the **HARVEST it™** affords the top management all information about the establishment and the essential business output required. It consolidates the information from the estate MIS and brings it to the Head Office for scrutiny and analyses.

The module provides the Chief Executive, information at all levels that will help him in analyzing the individual and comparative performance of the various locations under his charge. The reason for productivity or lack of it is made evident by comparison. The exercise not only increases productivity and profitability, but also quality at every level in the organization.

Functional utilities

- ❑ Performance analysis of estates / groups
- ❑ Sales analysis
- ❑ Forward planning
- ❑ Financial analysis
- ❑ Management of funds
- ❑ Weekly and monthly flash reports

It has drill-down capabilities to the basic unit/field level and ability to format out reports as required from the system. Performances are viewed as text or graphical images.

List of Reports

- ❑ Crop Statement
- ❑ Yield Statement
- ❑ Crop & yield Statement
- ❑ Statement of Tapping Intake
- ❑ State Expenditure Statement
- ❑ Class Wise Estate Stock Statement
- ❑ Class Wise Estate Closing Balance Statement



- ❑ Yield Comparison Statement
- ❑ Rainfall
- ❑ Profit/Loss Statement
- ❑ Cost of Production
- ❑ Tapping Cost Analysis
- ❑ Nursery Stock Account
- ❑ Utilization of Mandays
- ❑ Analysis on Shut Outs
- ❑ Analysis on Private Sales
- ❑ Top 10 Buyers Analysis
- ❑ Historical Data Information
- ❑ Over Expenditure Statement
- ❑ Variance Analysis Statement
- ❑ Profit/Loss Summary
- ❑ P & L Actual Vs Estimate
- ❑ Buyer Analysis
- ❑ Progress Report
- ❑ Mandays Utilization
- ❑ Expenditure, COP & Mandays Statement
- ❑ Crop & YPH Statement
- ❑ Labour, Material & Other Cost Statement
- ❑ Field Performance