HARVEST plus
Reaping success worldwide

Cultivation & Agronomy

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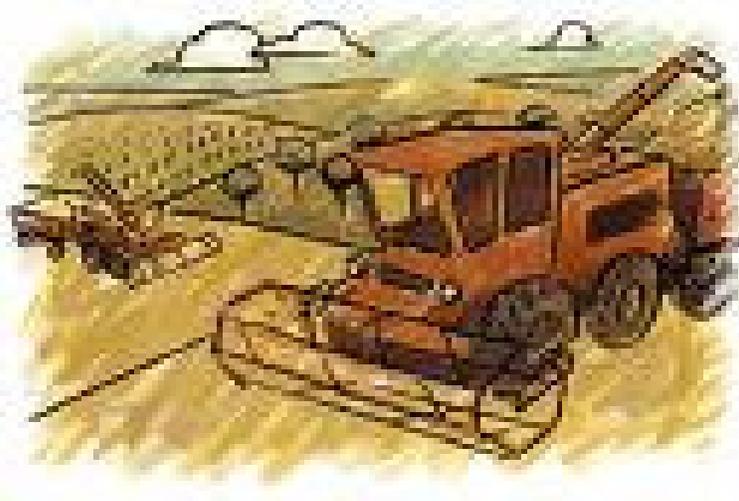
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Nursery System

The HARVEST plus Nursery System helps to define, record and calculate the nursery aspects of an agricultural industry. In this system, the nursery area is divided into germination beds. The seeds or seedlings are clubbed as batches and each batch is nursed through different growth stages before they attain maturity enough for the replanting phase. The system also captures the different activities involved in the nurture.

The various activities starts from the arrival of the seeds having clone and the corresponding sowing, germination and culling details are maintained through this system. The batch and stage transitions of seedlings in a batch can be separately maintained. The issue requisitions generated are also maintained through this system. The processes such as stock valuation and accounts posting can also be done.

You can generate various checklists and reports containing nursery details with different criteria. The system generates reports that can keep track of the history of each individual batch.

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Main Features of Nursery System

Nursery is a place where the plants are taken care until they are planted in the field to be grown and set for harvesting. The Nursery System facilitates the functioning of the nurseries of a company.

The major features of this system are listed below:

1. There could be more than one nursery administered by one department or estate. In such case each nursery will be treated as separate entity and their details will be recorded independently by the system.

   - Each new nursery is treated as separate projects (Capital) for the nursery period.

   - Nurseries are treated as cost centers where all the expenses incurred for growing the plants up to planting are captured.

2. This system keeps the details of growth stages of plants from seedling stage to the mature stage for planting.

3. The activity related to the nursery such as receiving and keeping the stock of seedlings, sowing (planting), culling of diseased plants, recording the details of the damaged and diseased plants are captured.

4. **Plant Transfer:** This system maintains the batch transferring details of the plants in the nursery.

   - The *Batch Transfer* screen is used to enter the details regarding the transfer of plants from one batch to another.

   - You can transfer the plants from one batch to one or more batches.

   - This transferring can be done to various beds and growth stages.

   - You can transfer the plants to other nurseries also.

5. The plants after having predefined months of growth in a particular growth stage can be transferred to its next higher growth stage. The *Growth Stage Transfer* screen is used to enter the transition details of plants from one stage to another. The transition details can be entered corresponding to the specified nursery and batch number on the specified date.

6. **Nursery Issue Requisition (NIR):** The NIRs are raised for requesting the issue of plants. NIRs are raised by estates for new planting, replanting and infilling. NIRs can be also raised for transferring stock of plants from one nursery to other and for selling plants to outsiders.

   - The generated NIRs have to be sanctioned by a higher authority. The

available stocks of plants are checked while sanctioning the issue. It is also possible to cancel the requisitions after sanctioning.

7   The stock valuation can be done at the end of each month, to derive the cost of each plant in the nursery, based on the total nursery cost and number of plants in the nursery.

8   The cost incurred for a nursery project is determining the cost per plant of the nursery. As there are some issues which are of based on an actual cost price method, the valuation of plant is much required for arriving the issue value. Valuation is only for costing the issues made on 'actual rate' method.

9   Cost per plant is derived after accumulating the cost incurred for the nursery from the beginning of the period. This includes the total cost incurred for purchasing seedling, labor wages paid for doing day-to-day activities, cost fertilizers and stores items issued to the nursery, staff salaries and administration expenses, general charges and other charges apportioned to the nursery etc. The cost price is calculated by dividing the total cost by the number of plants in the nursery.

10 **Account Posting:** Plants issues can be posted to accounts as a batch process once in a month. The beneficiary of the issues will be charged with the issue with the rate of issue and similar amount will be credited to the control account of nursery. Cost of issues varies from the type of issue, actual rate, budget rate and differential rate.

11 **Nursery Closing:** Closing of nursery is done, once all the plants of a nursery is sold out or issued. At the end of the closing, the closing journals will be passed to the books of accounts. Closing journals results a net balance in nursery control account by reversing the nursery expenses to the control account. This net balance will determine whether the project was in profit or loss.

Agronomy System

The HARVEST plus Agronomy System helps to maintain the details of agricultural units in the organization. This system automates and thus simplifies the data entry related to the agricultural work in the estates.

The production details of crops for a number of previous years, in each estate can be entered, and thus allows determining the average production per year for the period. Also based on the production details, the system will calculate the monthly distribution of production for the estates.

This system is able to provide new planting proposals for the blocks in the estates based on certain criteria. This system also allows doing the black bunch census and average bunch weight determination in the blocks for oil palm crop.

The details of leaf sampling, leaf analysis results and soil sampling can be entered through this system, and it thus facilitates the fertilization recommendations for the blocks. This system also provides with fruit setting assessment which allow you to find out the quality of pollination in the fields. The data related to various activities in the agricultural units can be maintained in this system that includes, pest or disease control measures, male flower census, assisted or artificial pollination, tree census, weather details, trail plot treatment, latex analysis etc.

The block surveying details and history of blocks can be kept in this system. This system provides a number of checklists and reports which shows the details based on the specified criterions.

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Main Features of Agronomy System

This system will automate the various activities of agricultural department in the organization.

The major features of this system are listed below:

1. **Production Details:** The production details in the estates for the past 'n' number of years can be captured through this system.

    • This helps to find monthly distribution of crop in percentage for each estate of oil palm and rubber for the current season.

    • This also helps to arrive at the balance production targets to be achieved for the current year.

2. **Planting Proposal:** This system suggests new planting proposals for each estate for the next 5 years.

    • New planting proposal will be based on criteria's such as year of planting, yield levels and no of trees per hectare. Based on the criteria or a combination of criteria's set, the system will provide the details of the blocks fit for replanting.

3. Different types of censuses can be recorded like *Black Bunch Census, Male Flower Census* and *Tree Census*.

4. **Average Bunch Weight Determination:** Estate wise and block wise average bunch weight quantity can be recorded. The average bunch weight determination can be done along with black bunch census is carried out at estates.

5. **Fertilizer Requirements:** Fertilizer recommendation / manuring program can be created, based on soil analysis and leaf analysis results, results of conducted experiments, average production of the block in the past, field condition etc.

    • This can be transferred to Budget System as a guideline for creating fertilization programs.

    • The fertilizer requirements for the blocks will be generated based on leaf samples analysis details and fertilizer chart provided by the agricultural department.

    • The details soil sample analyses can also be entered, which also used for fertilizer recommendations in the estates.

6. **Assessment of Fruit Setting:** Details of fruit setting assessment can be recorded which helps to determine the quality of pollination in the fields. A percentage of normal fruit is recorded.

7. **Varietal Determination:** Details of varietal determination can be recorded and the dura contamination percentage is recorded for further action.

8. **Pest and Disease Control Recommendations:** You can define the pests / disease and corresponding control measures. The pest and disease control recommendations will be generated based on the pest and disease census recorded in the system.

9. **Assisted Pollination:** Details of assisted pollination carried out in the fields can be recorded which could be of two types; manual and hive.

10. **Land Survey:** Details regarding land survey carried out in each block can be recorded and difference between previous and current can be analyzed through this system. It is possible to maintain the survey details of blocks in form of *Updated Estate Area Cards.*

11. **Weather Details:** This system records the daily rainfall details and determines water reserve in estates. This helps in determining the number of wet days in the estates and thus can arrive at the amount of water balance or shortage in the estates.

12. **Trial Plots:** You can define trial plot, in which research and development for analyzing the yield details of blocks are carried out. Different plots can be defined for a block, where various treatments are held and result of these treatments can be recorded in this system.

13. **Latex Analysis and Interpretation:** Details of latex samples collected for analysis can be entered. Based on the results sent by the analyzing agency, latex interpretation can be done.

   - Based on latex analysis and interpretation, recommendations on tapping system and stimulation in the blocks will be made.

14. **Report Generation:** Various reports are incorporated to the system such as Water Deficit, Average Bunch Weight Details, Male Flower Census, Production Estimation of Oil Palm, Manuring Programme Report etc.

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