

3. E. PRODUCTION – MUSTARD



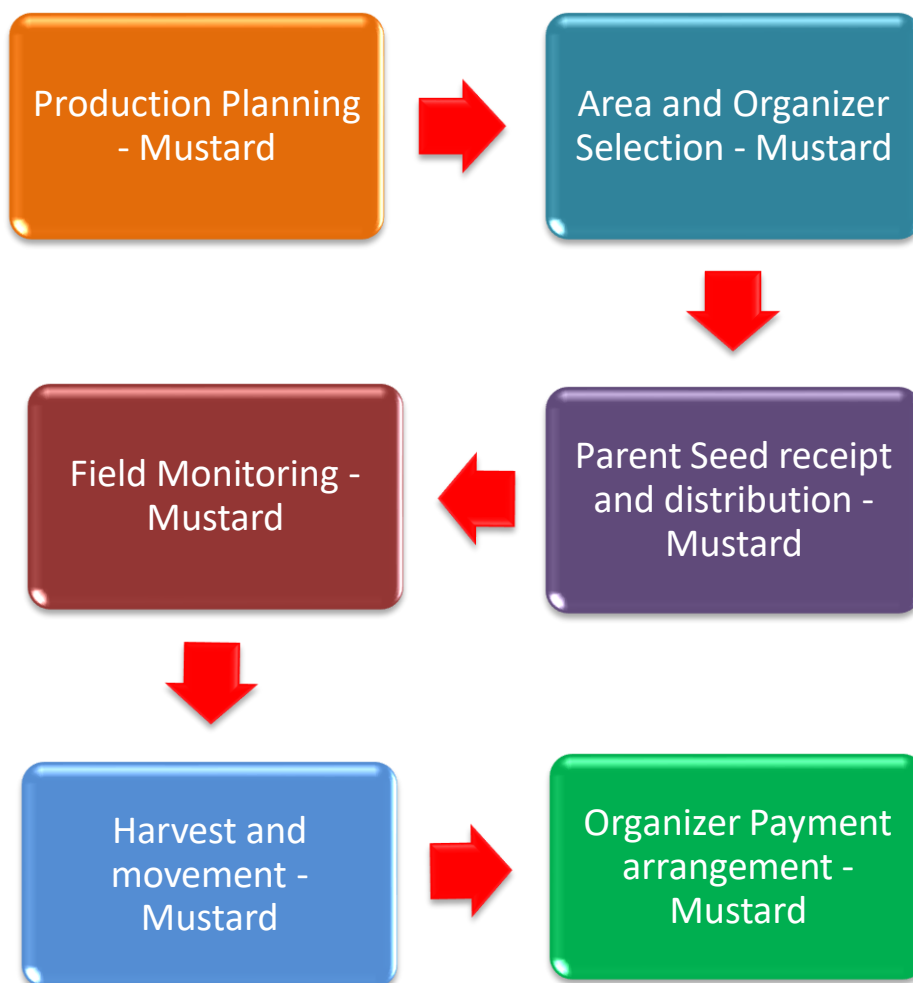
3.E PRODUCTION – MUSTARD

PROCESS SUMMARY

Objective:

- Production of quality hybrid seeds based on the sales requirement
- Timely supply of required quantity with quality hybrid seeds for processing

Process Overview:



Process beginning:

- Receipt of next year sales plan from sales and marketing

Process ending:

- Supply of hybrid mustard seeds to processing department

Key Inputs

| Particulars | From | Document Code |
|----------------------|-------------------|---------------|
| Next year Sales plan | Sales & Marketing | S&M/COM/003 |
| Parent Seed | Parent Seed | - |
| Hybrid Raw seeds | Grower/Organizers | - |
| Quality Results | Quality | QAS/COM/020 |

Key Outputs

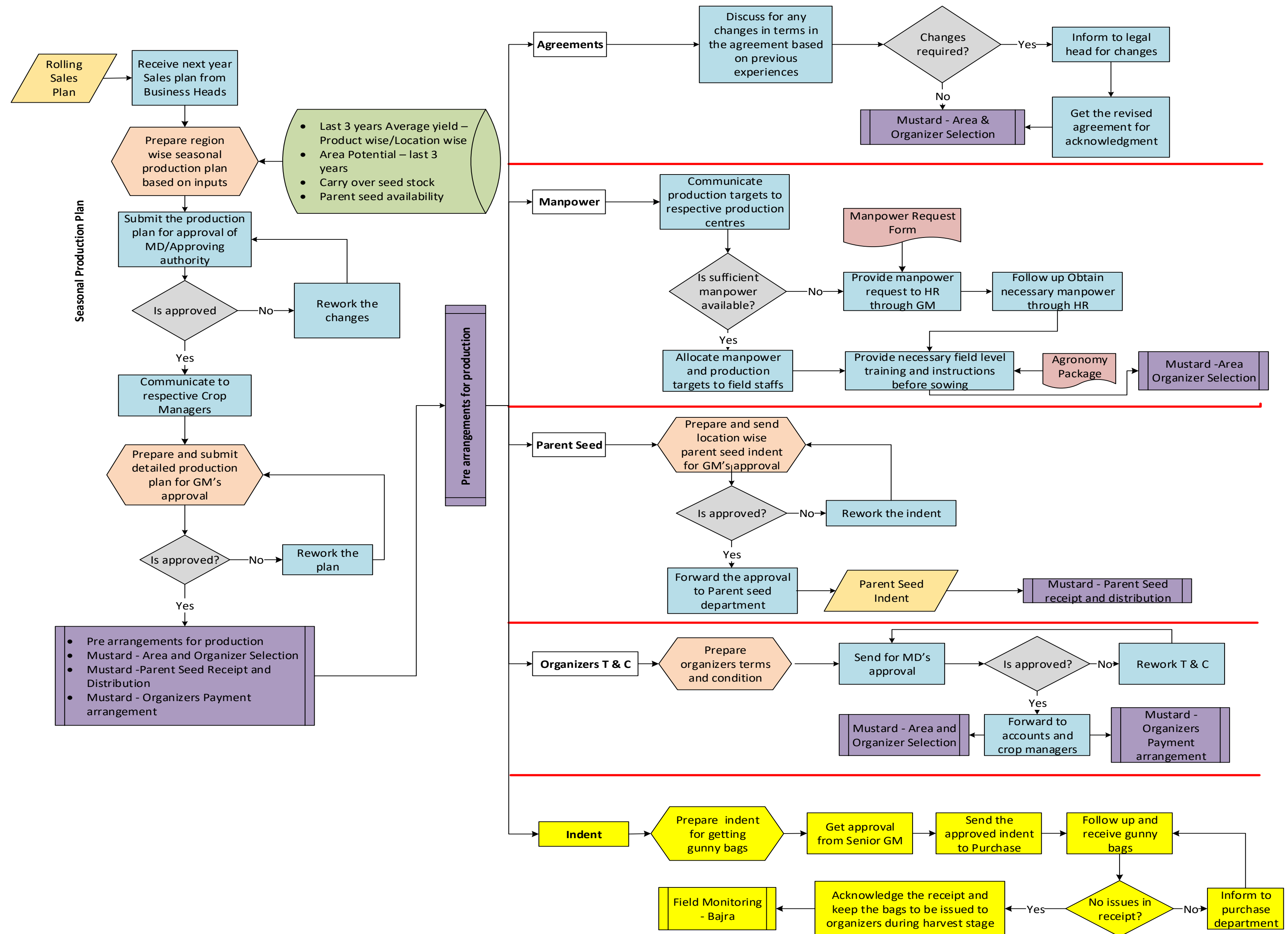
| Particulars | To | Document Code |
|-----------------------------|-------------------|---------------|
| Parent seed | Grower/Organizers | - |
| Germination and GOT Samples | Quality | - |
| Hybrid Raw seeds | Processing | - |

Key Documents / Register / Files

| S no | Document / Register Name | Document Format | Document Reference |
|------|--|-----------------|--------------------|
| 1 | Agronomy Package - Mustard | Booklet | PDN/FCD/021 |
| 2 | Area Potential - Mustard | Software report | PDN/FCD/022 |
| 3 | Average Yield – Last 3 years - Mustard | Software report | PDN/FCD/023 |
| 4 | Carry over seed stock - Mustard | Software report | PDN/FCD/024 |
| 5 | Crossing Starting Report - Mustard | Software report | PDN/FCD/025 |
| 6 | Grower - Terms and Conditions - Mustard | Excel | PDN/FCD/026 |
| 7 | Organizer Agreement - Mustard | Word | PDN/FCD/027 |
| 8 | Organizer - Terms and conditions - Mustard | Excel | PDN/FCD/028 |
| 9 | Production Plan - Mustard | Excel | PDN/FCD/029 |

| S no | Document / Register Name | Document Format | Document Reference |
|------|---------------------------------------|------------------|--------------------|
| 10 | Yield Estimation report | Excel | PDN/FCD/030 |
| 11 | Out gate pass | Pre-printed form | GEN/COM/001 |
| 12 | Field inspection report | Pre-printed form | GEN/COM/004 |
| 13 | Organiser payment check sheet | Excel | GEN/COM/037 |
| 14 | Organizer data | Software report | GEN/COM/030 |
| 15 | Parent seed indent | Excel | GEN/COM/032 |
| 16 | Parent seed stock report | Software report | GEN/COM/015 |
| 17 | Seed Dispatch Note for Field Run Seed | Pre-printed form | GEN/COM/020 |
| 18 | Sowing Report - Mustard | Pre-printed form | GEN/COM/40 |
| 19 | Stock Transfer Shipment | Software form | GEN/COM/009 |
| 20 | Vendor registration form | Word | GEN/COM/027 |
| 21 | Manpower request form | Pre-printed form | HRM/COM/002 |
| 22 | Rolling Sales plan | Excel | S&M/COM/003 |

3. E.1. MUSTARD - PRODUCTION PLANNING



Sub-process Owner:

Senior GM - MFG

Departments Involved:

Marketing
Parent Seed
Production

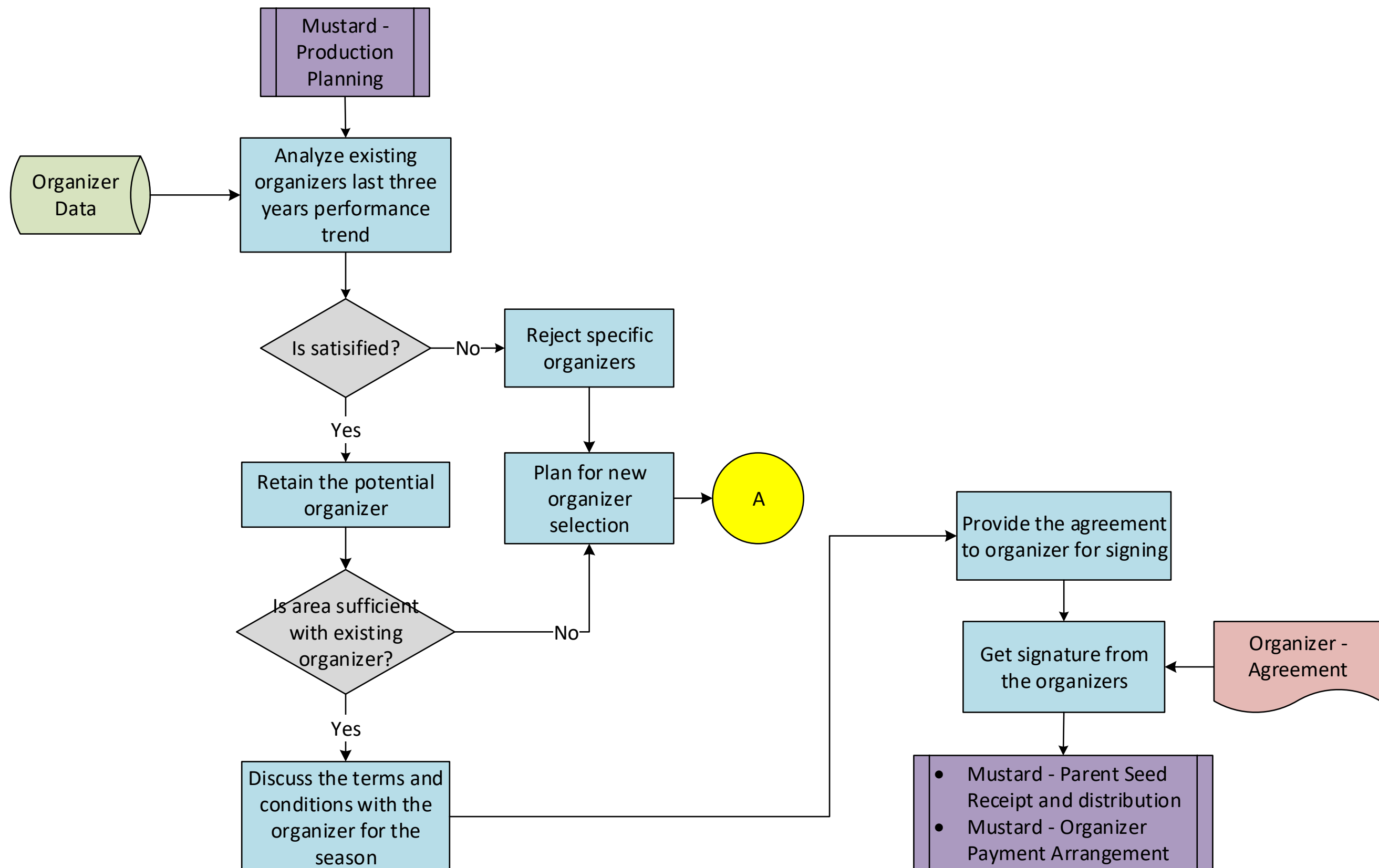
Key activities:

3. E.1.1 Annual production planning
3. E.1.2 Pre-arrangements for production
3. E.1.3 Organizers – Terms and conditions finalization

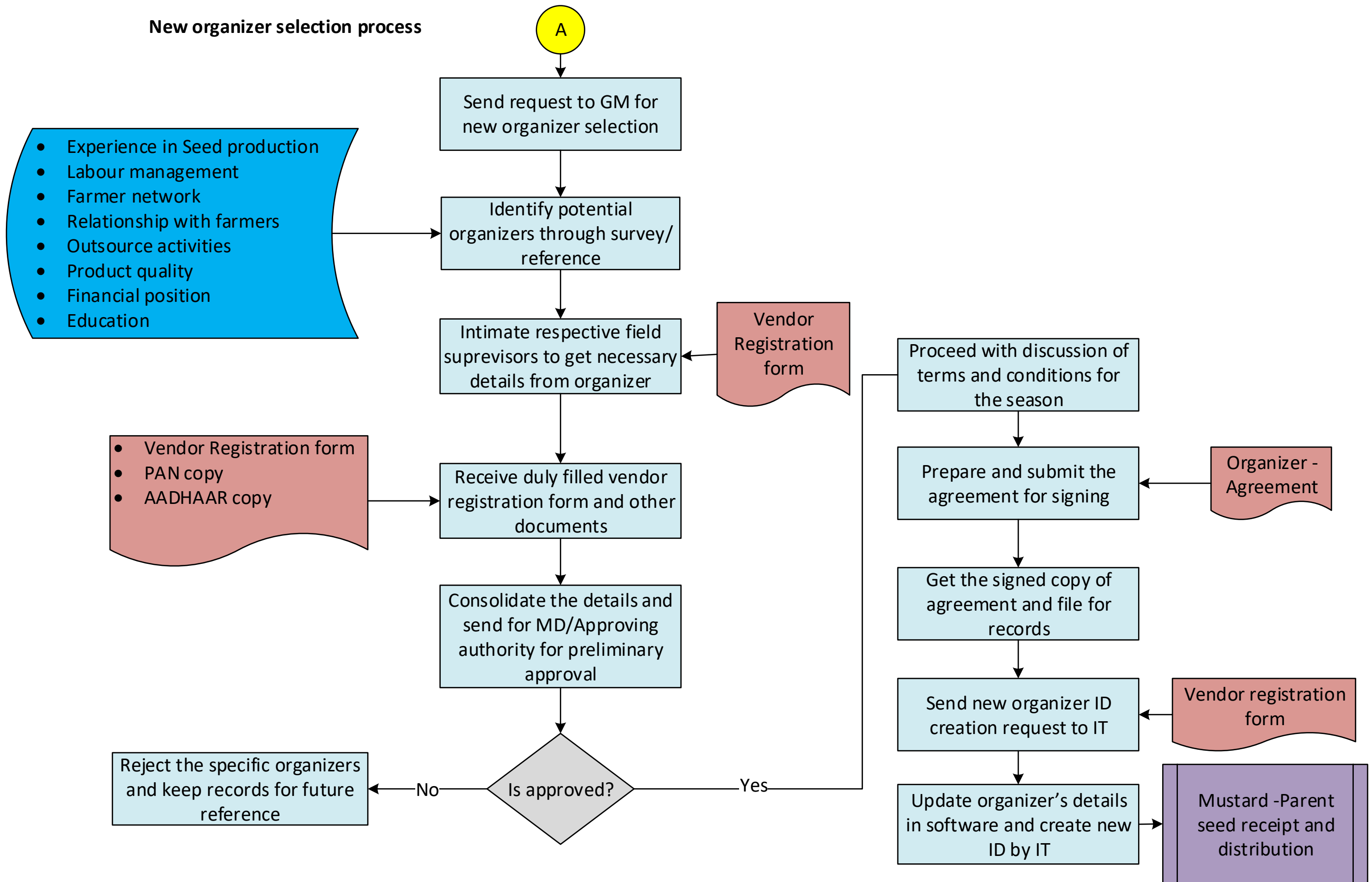
| Process | Maker | Checker | Approver |
|---|-----------------|-------------------|-------------------|
| 3. E.1.1 Annual Production Planning | | | |
| 1) Receive the next year sales plan from Business Heads | Senior GM - MFG | Senior GM - MFG | |
| 2) Based on the sales plan prepare Region wise seasonal production plan considering the following factors, <ul style="list-style-type: none"> Last 3 years Average yield – Production wise/Location wise Area potential – last 3 years Carry over seed stock Parent seed availability | Senior GM - MFG | Senior GM - MFG | |
| 3) Submit the annual production plan for MD/Approving authority's approval | Senior GM - MFG | Managing Director | Managing Director |
| 4) If any changes in the plan communicate it to the concern crop managers & rework the plan accordingly | Senior GM - MFG | | |
| 5) Submit the revised plan for MD/Approving authority's approval | Senior GM - MFG | Managing Director | Managing Director |
| 6) Communicate to respective crop Managers after approval | Senior GM - MFG | | |
| 7) Prepare and submit detailed production plan for GM's approval | Crop Manager | Senior GM - MFG | Senior GM - MFG |
| 8) Rework the plan when the plan is not approved and submit for approval | Crop Manager | Senior GM - MFG | Senior GM - MFG |
| 3. E.1.2 Pre-Arrangements for production | | | |
| 1) Discuss with GM for any changes in the terms of agreement with growers/organizers based on previous experience | Crop Manager | Senior GM - MFG | |
| 2) In case of changes required, inform to legal head and get revised agreement for acknowledgement | Senior GM - MFG | Legal – Head | |
| 3) Raise indent to stores department for agreement copies for direct growers | Crop Manager | Senior GM - MFG | Senior GM - MFG |
| 4) Receive the agreement copies from stores | Crop Manager | Senior GM - MFG | Senior GM - MFG |
| Manpower | | | |

| Process | Maker | Checker | Approver |
|--|-----------------|------------------------------|-------------------|
| 1) Conduct production planning meeting with deputy managers/Production Officers | Crop Manager | Senior GM - MFG | |
| 2) Discuss the plan and allocate the targets to each production centers | Crop Manager | Senior GM - MFG | |
| 3) Check the sufficient manpower availability (field staffs) for the given target. | Deputy Manager | Crop Manager | |
| 4) In case of insufficient manpower, send manpower requisition form to HR | Deputy Manager | Crop Manager | Senior GM - MFG |
| 5) Follow up with HR and obtain necessary manpower before Season starts. | Deputy Manager | Crop Manager | |
| 6) Provide necessary training at field level and instructions for existing as well as the new resource | Deputy Manager | Crop Manager | |
| Parent seed | | | |
| 1) Prepare location wise parent seed indent and send for GM's approval | Crop Manager | Head – FC Senior GM – MFG | Senior GM - MFG |
| 2) Rework the indent if the GM did not approve | Crop Manager | Head – FC Senior GM – MFG | |
| 3) Get approval and forward to parent seed department | Crop Manager | Head – FC Senior GM – MFG | |
| Indent | | | |
| 1) Prepare indent for getting gunny bags | Crop Manager | Head – FC | |
| 2) Get approval and send it to purchase department | Crop Manager | Head – FC | Senior GM - MFG |
| 3) Follow up and receive the gunny bags | Crop Manager | | |
| 4) Check for any damages and inform purchase team | Crop Manager | | |
| 5) If no damages then keep the gunny bags to be distributed to organizers during harvest stage | Crop Manager | | |
| 3. E.1.3 Organizers – Terms and Conditions finalization | | | |
| 1) Prepare terms and conditions for organizers as follows, <ul style="list-style-type: none"> Expected sown acres Advance per acre and slabs Interest % Mode of procurement – FR Seeds Procurement price – Rs/Kgs Payment Ratio Parent Seed cost per acre | Senior GM – MFG | Managing director | |
| 2) Send the terms and conditions for MD's approval and forward the approved T & C to accounts and crop managers | Senior GM – MFG | Managing director | Managing director |
| 3) If any changes needed in the terms, then rework the terms and conditions | Senior GM – MFG | | |
| 4) Send the revised terms and conditions for MD's approval | Senior GM – MFG | Managing director | Managing director |

3. E.2. MUSTARD - AREA AND ORGANIZER SELECTION



New organizer selection process



Sub-process Owner:

Senior GM - MFG

Departments Involved:

Production

Key activities:

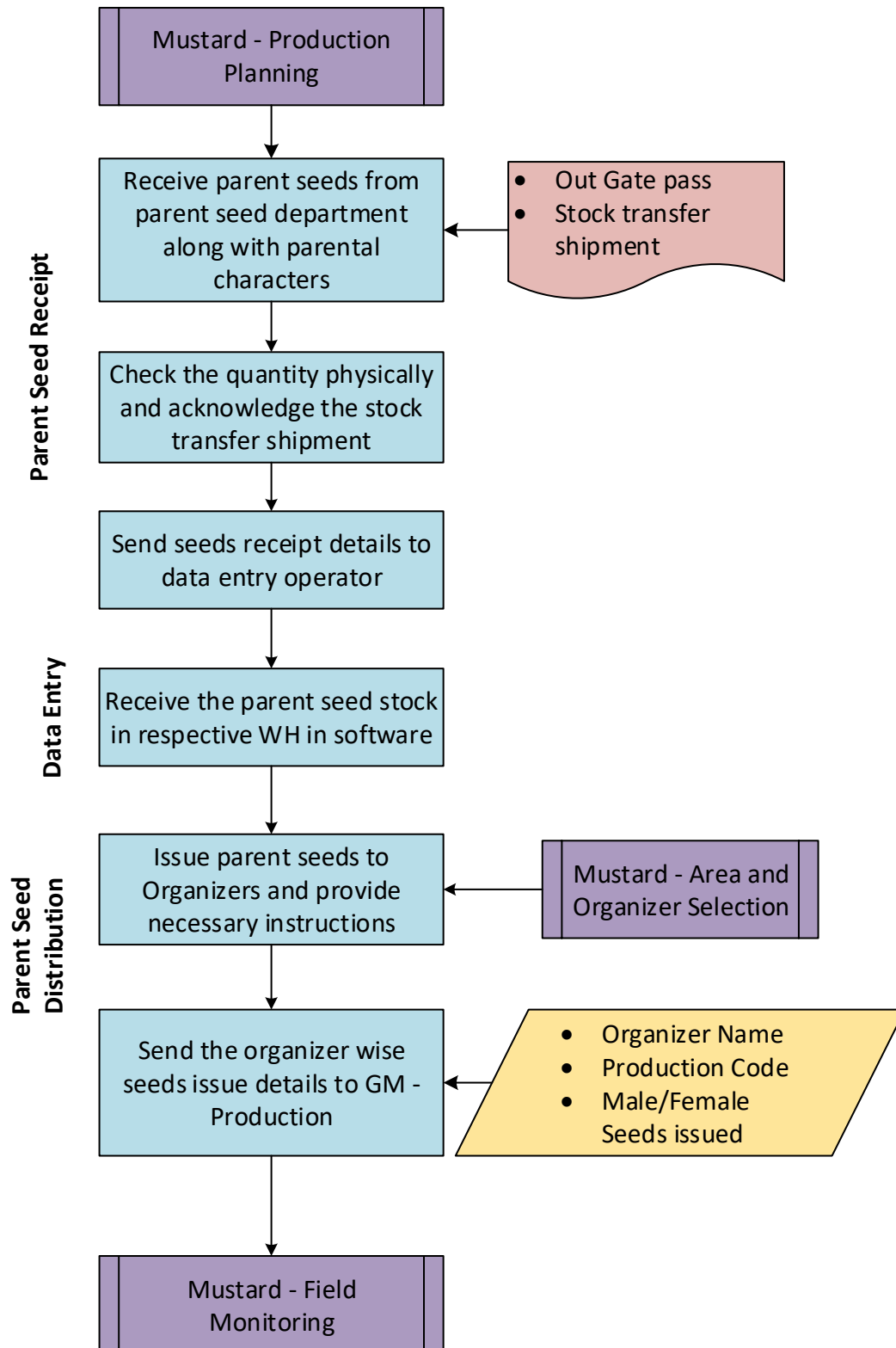
3. E.2.1 Existing Organizer selection

3. E.2.2 New Organizer selection

| Process | Maker | Checker | Approver |
|--|--------------|------------------------------|----------|
| 3. E.2.1 Existing organizer selection | | | |
| 1) Analyze the existing organizers last three years performance trend from organizer data | Crop Manager | Head - FC Senior GM - MFG | |
| 2) Check if the organizers performance is satisfactory and retain the potential organizer | Crop Manager | Head - FC Senior GM - MFG | |
| 3) In case of performance dissatisfaction, reject the specific organizers and plan for new organizer selection | Crop Manager | Head - FC Senior GM - MFG | |
| 4) Check whether the sufficient area is obtained and discuss the terms and conditions with the organizer for the season | Crop Manager | Head - FC Senior GM - MFG | |
| 5) In case of sufficient area not obtained, plan for the selection of new growers | Crop Manager | Head - FC Senior GM - MFG | |
| 6) Provide the agreement to organizer for signing | Crop Manager | Head - FC Senior GM - MFG | |
| 7) Get the signed agreement from organizer | Crop Manager | Head - FC Senior GM - MFG | |
| 3. E.2.2 New organizer selection process | | | |
| 1) Send request to GM production for selection of new organizers | Crop Manager | Head - FC Senior GM - MFG | |
| 2) Get the organizers details in the specific location and start survey <ul style="list-style-type: none"> Capacity Manpower Outsource activities Goodwill with farmer Farmer network Outsource products & qualities Financial Position | Crop Manager | Head - FC Senior GM - MFG | |

| Process | Maker | Checker | Approver |
|---|----------------|------------------------------|----------|
| <ul style="list-style-type: none"> Duration of seed business Education | | | |
| 3) Collect necessary documents from the new organizers <ul style="list-style-type: none"> Vendor Registration form PAN Bank account details with cancelled cheque leaf Address proof RC copy | Crop Manager | Head - FC Senior GM - MFG | |
| 4) Consolidate the details and send for GM's approval | Crop Manager | Head - FC Senior GM - MFG | |
| 5) If not approved, reject the specific organizer and keep records for future reference | Crop Manager | Head - FC Senior GM - MFG | |
| 6) If approved, discuss the terms and conditions for the current season | Crop Manager | Head - FC Senior GM - MFG | |
| 7) Send organizers code creation request to IT <ul style="list-style-type: none"> Organizer name Address Name as per Bank record Bank name and branch Account No RTGS/ IFSC code PAN AADHAAR GST | Crop Manager | Head - FC Senior GM - MFG | |
| 8) Update organizers details and create new code for organizers in software | IT - Executive | Crop Manager | |

3. E.3. MUSTARD - PARENT SEED RECEIPT AND DISTRIBUTION



Sub-process Owner:

Senior GM - MFG

Departments Involved:

Parent Seed

Production

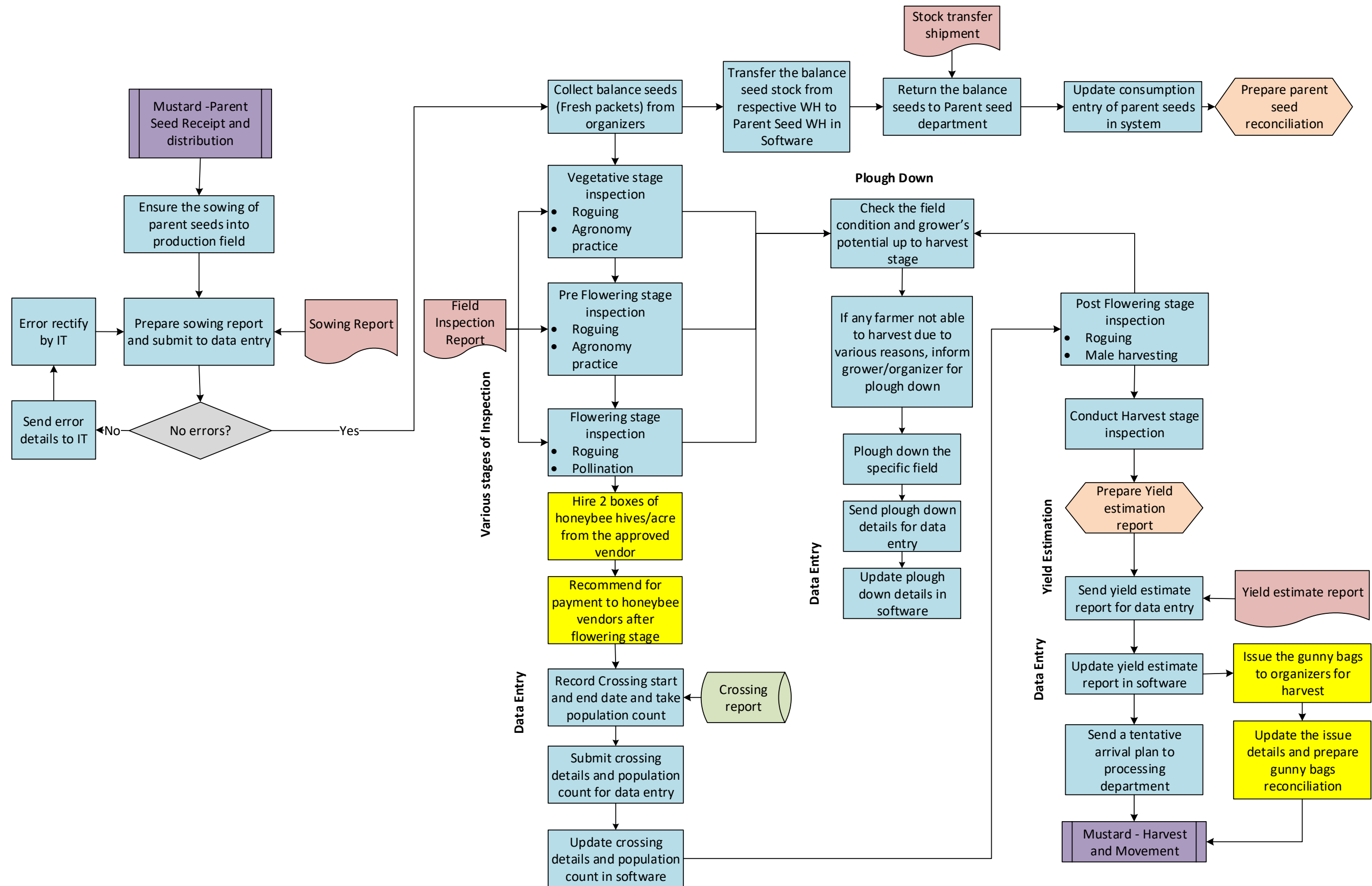
Key activities:

3. E.3.1 Parent seed receipt

3. E.3.2 Parent seed distribution

| Process | Maker | Checker | Approver |
|---|---------------------|-----------------|----------|
| 3. E.3.1 Parent Seed receipt | | | |
| 1) Receive parent seeds from parent seed department along with parental characters <ul style="list-style-type: none"> Out gate pass Stock transfer shipment | Crop Manager | Senior GM - MFG | |
| 2) Receive and check the parent seed quantity physically and acknowledge the stock transfer shipment | Crop Manager | Senior GM - MFG | |
| 3) Submit seed receipt details for data entry | Crop Manager | | |
| 4) Receive the parent seed stock in respective WH in software | Data entry operator | Crop Manager | |
| 3. E.3.2 Parent Seed Distribution | | | |
| 1) Issue parent seeds to organizers and provide necessary instructions | Crop Manager | Senior GM - MFG | |
| 2) Send organizer wise seeds issue details to GM production <ul style="list-style-type: none"> Organizer name Production Code Male/Female seeds issued | Crop Manager | Senior GM - MFG | |

3. E.4. MUSTARD - FIELD MONITORING



Sub-process Owner:

Senior GM - MFG

Departments Involved:

Production
Parent Seed
IT

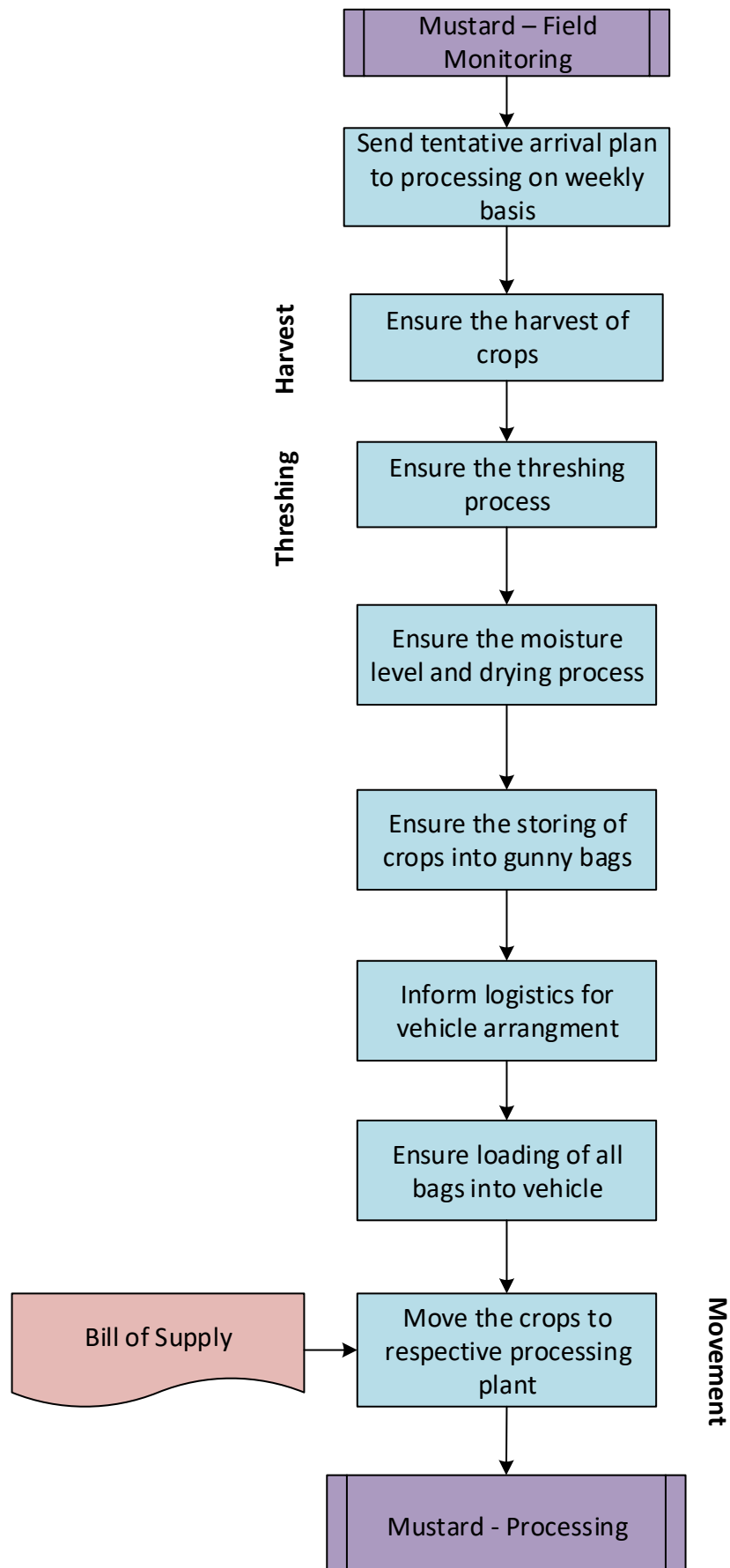
Key activities:

- 3. E.4.1 Sowing
- 3. E.4.2 Parent Seed reconciliation
- 3. E.4.3 Field inspection
- 3. E.4.4 Plough down
- 3. E.4.5 Yield estimation

| Process | Maker | Checker | Approver |
|--|------------------------------------|-----------------|----------|
| 3. E.4.1 Sowing | | | |
| 1) Ensure the sowing of parent seeds into production field | Field Assistants/Field supervisors | Deputy Manager | |
| 2) Prepare sowing report and send for data entry | Field Assistants/Field supervisors | Deputy Manager | |
| 3) Update the sowing report in software | Data entry operator | Deputy Manager | |
| 4) Check for errors and send the error details to IT for rectification | Data entry operator | Deputy Manager | |
| 3. E.4.2 Parent Seed Reconciliation | | | |
| 1) Collect balance seeds from organizers | Field Assistants/Field supervisors | Deputy Manager | |
| 2) Transfer the unsown seed stock from respective WH to parent seed WH in software | Data entry operator | Deputy Manager | |
| 3) Return the balance seeds based on stock transfer shipment to parent seed department | Deputy Manager | Crop Manager | |
| 4) Update consumption entry in system and prepare parent seed reconciliation | Data entry operator | Deputy Manager | |
| 5) Prepare parent seed reconciliation and confirm with parent seed department | Crop Manager | Senior GM - MFG | |
| 3. E.4.3 Field Inspection | | | |
| 1) Conduct various stages of inspection <ul style="list-style-type: none"> Vegetative stage – Roguing, Agronomy practice Pre-flowering stage – Roguing, Agronomy practice Flowering stage - Roguing, Pollination Post flowering stage – Roguing, Male Harvesting | Field Assistants/Field supervisors | Deputy Manager | |

| Process | Maker | Checker | Approver |
|---|------------------------------------|-----------------------------|----------|
| 2) Hire 2 boxes of honeybee hives/ acre from the approved vendor | Crop Manager | Head – FC | |
| 3) Recommend for payment to the honeybee vendor after flowering stage based on acre as per agreed terms | Crop Manager | Head – FC | |
| 4) Create crossing report based on crossing start and end date and take population count for flowering stage inspection | Field Assistants/Field supervisors | Deputy Manager | |
| 5) Data entry the crossing details and population count and update in the software | Data entry operator | Deputy Manager | |
| 3. E.4.4 Plough Down | | | |
| 1) Check the field condition and grower's potential for vegetative stage, pre-flowering stage and post flowering stage | Field Assistants/Field supervisors | Deputy Manager | |
| 2) Ensure if any farmers find difficulty to harvest due to various reason then inform grower/organizer for plough down | Field Assistants/Field supervisors | Deputy Manager | |
| 3) Confirm with QA team and Plough down the specific field and send details for data entry | Field Assistants/Field supervisors | Deputy Manager/Crop Manager | |
| 4) Update plough down details in software | Data entry operator | Deputy Manager/Crop Manager | |
| 3. E.4.5 Yield Estimation | | | |
| 1) Conduct harvest stage inspection and prepare yield estimation report | Field Assistants/Field supervisors | Deputy Manager | |
| 2) Data entry the yield estimation report and update the report in software | Data entry operator | Deputy Manager/Crop Manager | |
| 3) Send a tentative arrival plan to processing department | Deputy Manager | Crop Manager | |
| 4) Issue gunny bags to organizers based on the yield estimation for harvest purpose | Field Assistants/Field supervisors | Deputy Manager | |
| 5) Prepare gunny bags reconciliation for the receipt/issue and remaining | Deputy Manager | Crop Manager | |

3. E.5. MUSTARD – HARVEST AND MOVEMENT



Sub-process Owner:

Senior GM - MFG

Departments Involved:

Production

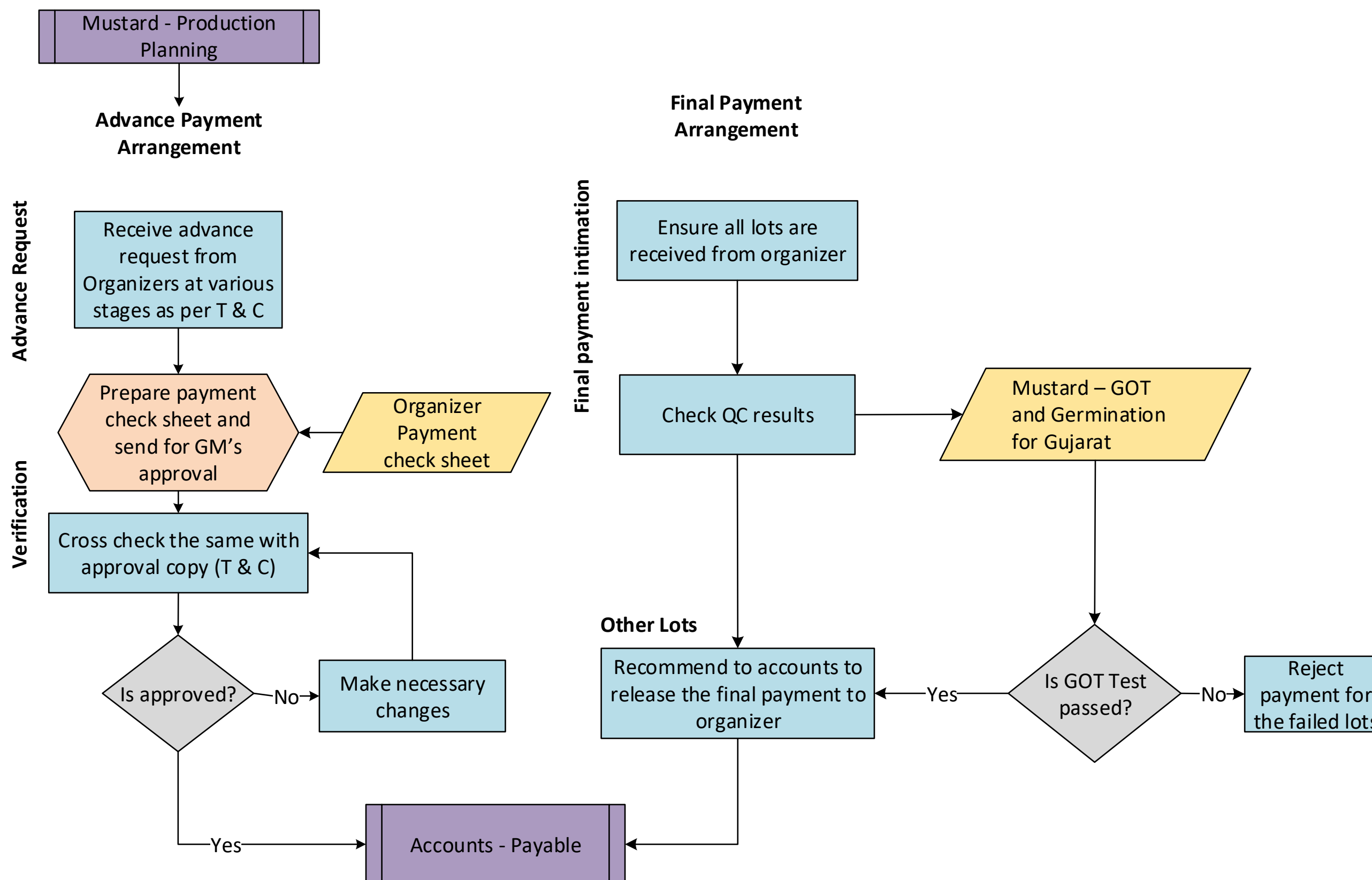
Processing

Key activities:

3. E.5.1 Harvest and movement

| Process | Maker | Checker | Approver |
|--|------------------------------------|----------------|----------|
| 3. E.5.1 Harvest and movement | | | |
| 1) Send tentative arrival plan to processing on weekly basis and Ensure the harvest of crops | Field Assistants/Field supervisors | Deputy Manager | |
| 2) Ensure the threshing process, moisture level and drying process | Field Assistants/Field supervisors | Deputy Manager | |
| 3) Ensure the storing of crops in gunny bags and inform logistics for vehicle arrangement | Deputy Manager | Crop Manager | |
| 4) Ensure loading of all bags into vehicle | Field Assistants/Field supervisors | Deputy Manager | |
| 5) Move the crops to respective processing plant through Bill of supply | Field Assistants/Field supervisors | Deputy Manager | |

3. E.6. MUSTARD – ORGANIZER PAYMENT ARRANGEMENT



Sub-process Owner:

Senior GM - MFG

Departments Involved:

Production

Accounts

QC

Key activities:

3. E.6.1 Advance payment arrangement

3. E.6.2 Final payment arrangement

| Process | Maker | Checker | Approver |
|---|----------------|-------------------------|-----------------|
| 3. E.6.1 Advance payment arrangement | | | |
| 1) Receive advance request from organizers at various stages as per Terms & Conditions | Deputy Manager | Crop Manager | |
| 2) Prepare organizer payment check sheet and send for GM's approval | Deputy Manager | Crop Manager | |
| 3) Cross check the same with approval copy as per Terms & conditions | Head - FC | Senior GM - MFG | |
| 4) Check for approval if not make necessary changes and cross check the same with terms & conditions | Crop Manager | Head - FC | Senior GM - MFG |
| 5) If approved, recommend to accounts for payment | Crop Manager | Head - FC | Senior GM - MFG |
| 3. E.6.2 Final payment arrangement | | | |
| 1) Ensure all lots are received from grower/organizer | Deputy Manager | Crop Manager | |
| 2) Check QC for mustard GOT and germination for Gujarat and recommend the accounts to release the final payment to grower/organizer after the results | Deputy Manager | Crop Manager/ Head – FC | Senior GM - MFG |
| 3) Reject payment for GOT result failed lots | Deputy Manager | Crop Manager/ Head - FC | Senior GM - MFG |