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2.A PARENT SEED – COTTON



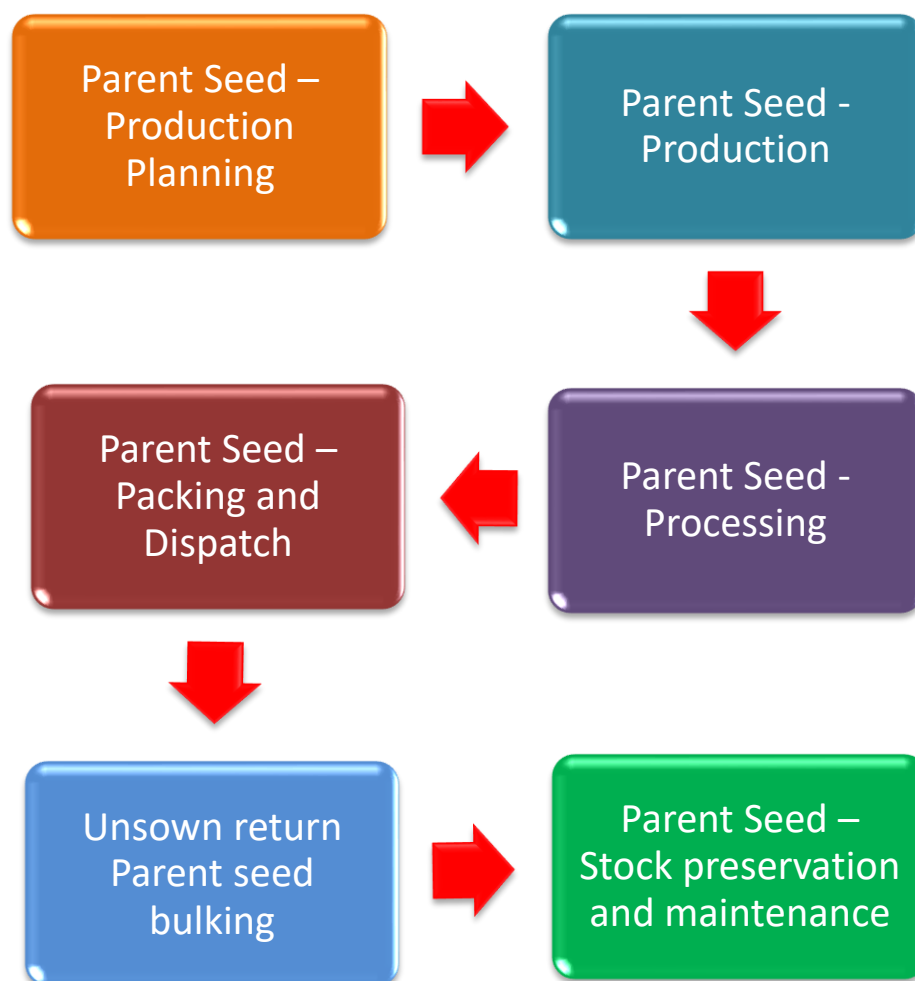
2.A PARENT SEED - COTTON

PROCESS SUMMARY

Objective:

- Production of quality parent seeds based on the production requirement
- Timely supply of required quantity with quality parents seed for hybrid seed production

Process Overview:



Process beginning:

- Receipt of rolling sales plan from marketing

Process ending:

- Supply of parent seed to production department for Hybrid seeds production

Key Inputs

Particulars	From	Document Reference
3 Years Rolling Sales Plan	Marketing	S&M/COM/003
Area canvas report	Assistant Managers	GEN/COM/003
Breeder Seed	Cotton Breeder – R &D	PSD/COT/004
Breeder seed varietal characters	Cotton Breeder – R &D	-
Quality report	Quality	QAS/COM/020
Kapas	Growers	-
Treatment chemicals, Stationaries, Packing etc.	Stores	PRC/COT/029
Sowing report	Field assistants	GEN/COM/033
Production Item code	IT	-
Parent seed indent	Production	GEN/COM/032
Packing item code for parent seed	Production	-
Unsown seeds return	Production	-

Key Outputs

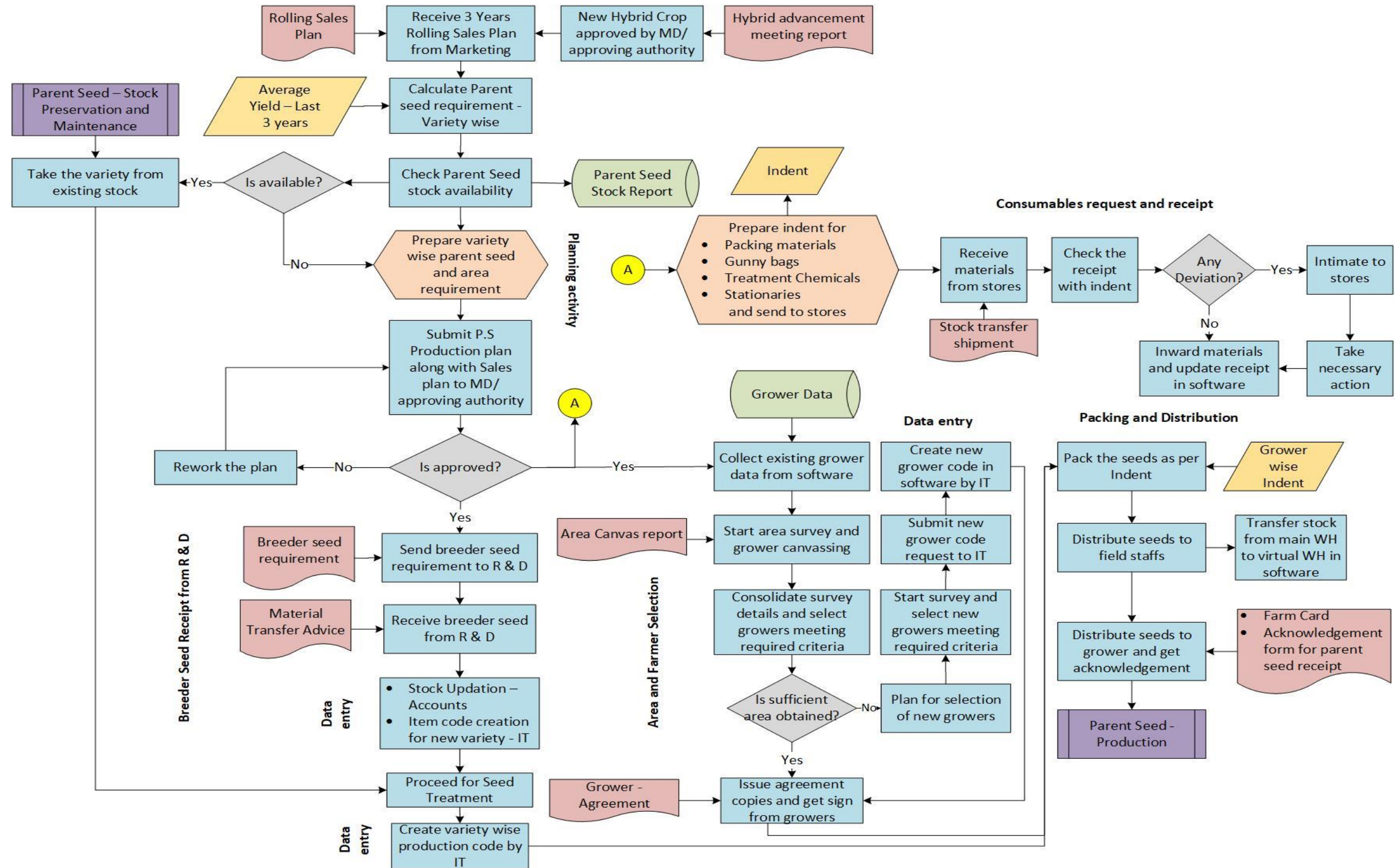
Particulars	To	Document Reference
Foundation Seeds	Growers	S&M/COM/003
Parent Seed Mapping details	IT	GEN/COM/003
Parent Seeds	Production department	PSD/COT/004
Samples for testing	QC	-
Production code for all hybrids	Production and Processing department	QAS/COM/020
Male, Female and Hybrid F1 characters	QC	-
Kapas rate approval copy	Accounts	PRC/COT/029
Grower wise kapas receipt for payment	Accounts	GEN/COM/033

Key Documents / Register / Files

S no	Document / Register Name	Document Format	Document Reference
1	Agronomy Schedule book	Pre-printed form	PSD/COT/001
2	Average Yield – Last 3 years – Cotton	Software report	PSD/COT/002
3	Average yield per Acre	Excel	PSD/COT/003
4	Breeder seed requirement	Excel	PSD/COT/004
5	Direct Grower - Agreement - P. Seed Cotton	Pre-printed form	PSD/COT/005
6	Farm Card - Parent Seed Cotton	Pre-printed form	PSD/COT/006
7	Grower Payment approval	Print out	PSD/COT/007
8	Grower wise yield	Software report	PSD/COT/008
9	Parent Seed Mapping Details	Excel	PSD/COT/010
10	Tagging report	Pre-printed form	PSD/COT/011
11	Delinting report	Pre-printed form	PRC/COT/005
12	Ginning report	Pre-printed form	PRC/COT/007
13	Hand cleaning report	Pre-printed form	PRC/COT/011
14	Kapas movement advice	Pre-printed form	PRC/COT/013
15	Online processing report	Pre-printed form	PRC/COT/023
16	Re-processing report	Pre-printed form	PRC/COT/026
17	Treatment report	Pre-printed form	PRC/COT/029

S no	Document / Register Name	Document Format	Document Reference
18	Hybrid Advancement Report	Excel	PDD/COM/009
19	QC transfer advice	Software form	QAS/COM/022
20	Out gate pass	Pre-printed form	GEN/COM/001
21	Acknowledgement form for parent seed receipt	Pre-printed form	GEN/COM/002
22	Area Canvas Report	Excel Hard copy	GEN/COM/003
23	Field inspection report	Pre-printed form	GEN/COM/004
24	Grower Data	Software report	GEN/COM/005
25	Grower Pass Book	Pre-printed form	GEN/COM/006
26	Grower wise seed indent	Excel	GEN/COM/007
27	Indent	Excel – Mail	GEN/COM/008
28	Stock Transfer Shipment	Software form	GEN/COM/009
29	Kapas/FR Seed receipt	Software form	GEN/COM/010
30	Material inward advice	Pre-printed form	GEN/COM/011
31	Material transfer advice	Pre-printed form	GEN/COM/012
32	Packing Slip	Software form	GEN/COM/013
33	Parent seed reconciliation	Excel	GEN/COM/014
34	Parent Seed Stock Report	Software report	GEN/COM/015
35	Parent seed stock transfer note	Pre-printed form	GEN/COM/016
36	Parent wise foundation seed requirement	Excel	GEN/COM/017
37	Recommendation slip	Pre-printed form	GEN/COM/018
38	Roguing Report	Pre-printed form	GEN/COM/019
39	Seed Dispatch Note for Field Run Seed	Pre-printed form	GEN/COM/020
40	Sowing Report - P. Seed Cotton	Pre-printed form	GEN/COM/021
41	Spraying and Fumigation Register	Manual Register	GEN/COM/022
42	Rolling Sales plan	Excel	S&M/COM/003

2.A.1 PARENT SEED PRODUCTION PLANNING



Sub-process Owner:

GM - Operations

Departments Involved:

Marketing
Parent Seed
R&D
Stores
Accounts

Key activities:

- 2.A.1.1 Preparation of production plan for foundation seeds
- 2.A.1.2 Breeder seed Requirement and receipt
- 2.A.1.3 Area Canvassing and Field Selection
- 2.A.1.4 Chemical treatment
- 2.A.1.5 Code Allocation
- 2.A.1.6 Foundation seed packing and distribution
- 2.A.1.7 Consumables requisition and receipt

Process	Maker	Checker	Approver
2.A.1.1 Preparation of production plan for foundation seeds			
1) Receive 3 years rolling sales plan and any new hybrid crop sales plan (approved by MD) from marketing team <ul style="list-style-type: none"> 3 years rolling sales plan – Crop Name, Variety, No of packets New Hybrid crop through Hybrid advancement meeting 	Parent Seed - Manager	Head – Commercial & Parent Seed Cotton	
2) Calculate parent seed requirement parent wise based on the rolling sales plan and last three years average yield	Parent Seed - Manager	Head – Commercial & Parent Seed Cotton	
3) Check the parent seed stock availability in hand by generating parent seed stock report in software	Parent Seed - Manager		
4) If stock available take the variety from existing stock	Parent Seed - Manager		
5) If not available prepare variety wise parent seed and area requirement	Parent Seed - Manager	Head – Commercial & Parent Seed Cotton	
6) Plan for any shortfall in production of cotton for the months of January/February based on previous history	Parent Seed - Manager	Head – Commercial & Parent Seed Cotton	
7) Increase the area by additional 30% for all parent to meet out any natural calamities or to have buffer stock	Parent Seed - Manager	Head – Commercial	

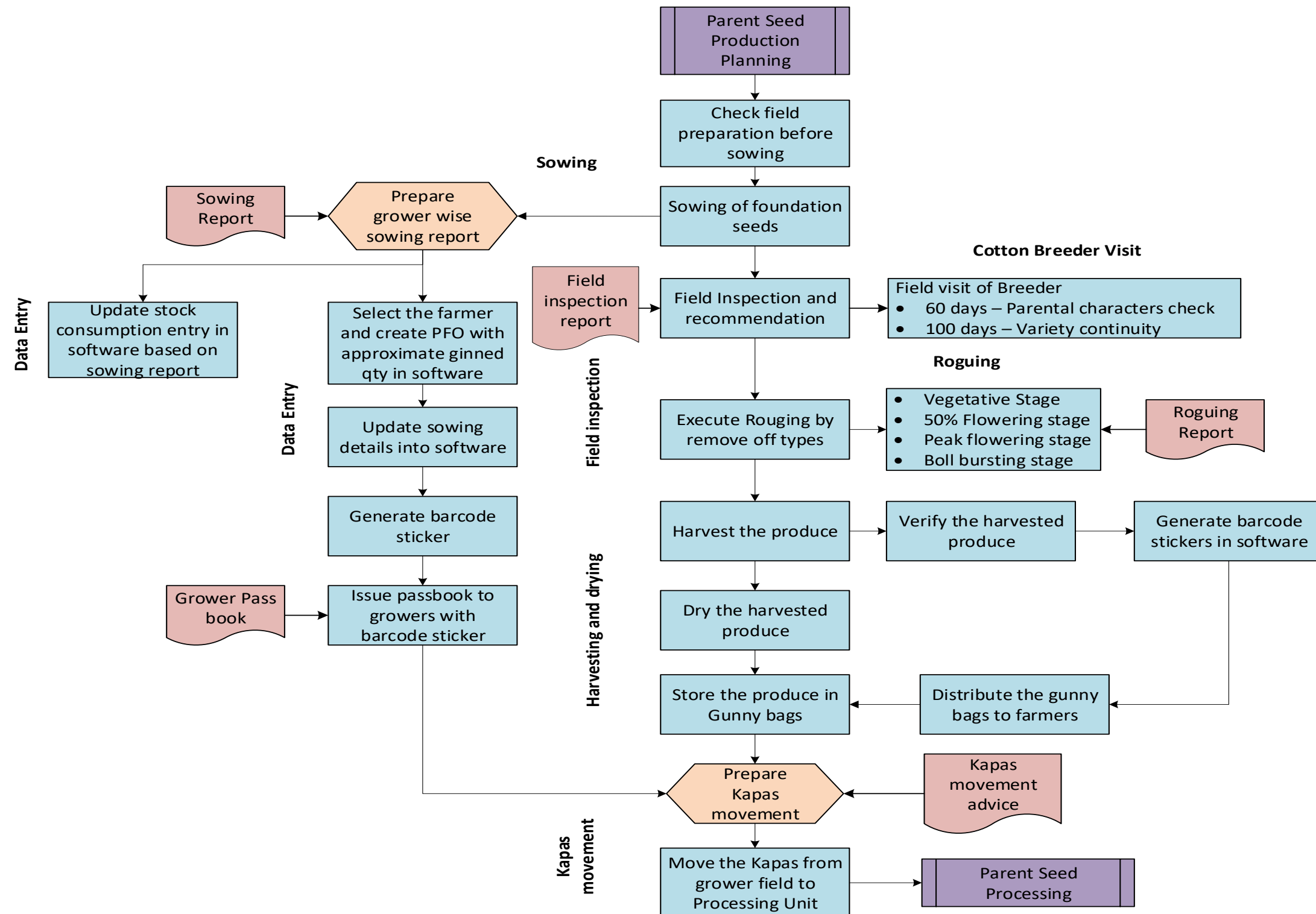
Process	Maker	Checker	Approver
		& Parent Seed Cotton	
8) Based on the sales plan, submit parent seed production plan & area increase plan (if required more than 30%) for approval of Managing Director/Approving authority	Parent Seed - Manager	Head – Commercial & Parent Seed Cotton	Managing Director
9) In case of any change in the plan as per MD's instruction, rework the plan and send for MD's approval	Parent Seed - Manager	Head – Commercial & Parent Seed Cotton	Managing Director
2.A.1.2 Breeder seed Requirement and receipt			
1) Prepare breeder seed requirement based on the availability of stock	Parent Seed - Manager	Head – Commercial & Parent Seed Cotton	
2) Send the breeder seed requirement to R & D through mail <ul style="list-style-type: none"> Variety Name Required Qty – Male & Female 	Parent Seed - Manager	Cotton breeder – R & D	Head – Commercial & Parent Seed Cotton
3) Receive and cross check the breeder seed with the requirement and acknowledge the Material transfer advice	Parent Seed - Manager	Head – Commercial & Parent Seed Cotton	
4) Send the breeder seed receipt details with code to accounts department for updation of stock into software	Parent Seed - Manager		
5) Stock updation into the software for existing variety	Dy Manager- Accounts	Parent Seed –Manager	
6) Send new variety breeder seed details to IT for creating new code	Parent Seed - Manager		
7) Code creation for new variety breeder seed in software by IT	IT - Executive	Parent Seed -Manager	
8) Stock updation into the software for existing variety	Dy Manager- Accounts	Parent Seed -Manager	
2.A.1.3 Area Canvassing and field Selection			
1) Collect existing grower data from software <ul style="list-style-type: none"> Grower Code Grower Name Village 	Field Supervisor /Field assistants	Assistant Manager	

Process	Maker	Checker	Approver
<ul style="list-style-type: none"> Father Name Acre of field sown Variety sown previous season 			
2) Execute area visit for canvassing the farmers/growers	Field Supervisor /Field assistants	Assistant Manager	
3) Details of growers to be updated in area canvas report	Field Supervisor /Field assistants	Assistant Manager	
4) Consolidate and select the growers who met required field criteria as follows, <ul style="list-style-type: none"> Previous harvested crop should not be the same crop Required isolation distance – 50 M Good fertility and water source Previous history (For Existing growers) – Hybrid produced, area utilized, Yield etc. 	Field assistants/Supervisor	Assistant Manager/Parent Seed - Manager	Head – Commercial & Parent Seed Cotton
5) In case of scarcity of area, plan for selecting the new growers	Assistant Manager/Field Supervisor	Parent Seed - manager	
6) Inform the Field Assistants to conduct survey and canvas of new growers in their location. <ul style="list-style-type: none"> Farmer willingness and capacity Area measurement – Manual Isolation distance Shadow effect (trees) Drainage facility (low level land) Irrigation facility Labour source Neighborhood field – crop, distance, etc. Land type – lease/own Land Survey Number AADHAAR number 	Assistant Manager/Field Supervisor	Parent Seed - manager	
7) Consolidate the new grower survey details and submit to respective authority	Field Assistants/Field supervisors	Assistant Manager / Manager	
8) Select the growers who meet the requirements for the required area	Assistant Manager	Head – Commercial	

Process	Maker	Checker	Approver
	/Parent Seed - Manager	& Parent Seed Cotton	
9) Collect necessary details and documents from the new grower <ul style="list-style-type: none"> Address proof PAN copy Bank pass book copy AADHAAR copy Contact No Land Survey Number 	Field Assistants/Field supervisors	Assistant Manager	
10) Prepare the new Farmer ID request and submit along with above details to IT (bulk list) or data entry operators (smaller list)	Assistant Manager/Field Supervisor	Parent Seed – manager	
11) Update the grower details and create new Farmer ID in software	IT – Executive/Data Entry Operator		
12) Distribute the agreement copies to field assistants	Parent Seed - manager		
13) Take the agreement copies to respective fields and Get acknowledgement from grower in the agreement	Field Assistants/Field supervisor	Assistant Manager	
14) Prepare indent for packing to approved growers for their area and volume	Field assistants/Supervisor	Assistant Manager	
2.A.1.4 Chemical treatment			
1) Treat the breeder seeds received from R & D and parent seeds from existing stock with chemical manually using imida, vitavax and polymer	Unit Supervisor	Parent Seed – Manager	
2.A.1.5 Code allocation			
1) Allot code number to each variety of parent seed with year specification for tracking and to maintain confidentiality of variety distributed	Parent Seed - Manager	Head – Commercial & Parent Seed Cotton	
2) Send the following details to IT department to create production item code in the system <ul style="list-style-type: none"> Actual variety Production code Class of seed Year of production 	Parent Seed - Manager	Head – Commercial & Parent Seed Cotton	

Process	Maker	Checker	Approver
<ul style="list-style-type: none"> • Crop Type – GMS/Conventional • Crop Code • Crop Name • Season • Location • Own/Organizer production • Rate • Payment type (Kapas/Ginned Seed) 			
3) Create production item code in system	IT - Executive	Parent Seed – Manager	
2.A.1.6 Foundation seed Packing and Distribution			
1) Manually pack the seeds based on grower wise indent	Unit Supervisor	Parent Seed – Manager	
2) Provide the foundation seeds to the Field supervisors/assistants to be distributed to concerned growers along with farm card mentioning variety, lot details	Assistant Manager	Parent Seed – Manager	
3) Transfer the stock from main warehouse to virtual warehouse in software for the foundation seeds distributed to growers	Data entry operator	Assistant Manager/Manager-Parent Seed	
4) Distribute the seeds to concerned growers and get acknowledgment from them in Foundation seed acknowledgement receipt form	Field Supervisors/Field Assistants	Assistant Manager/Manager-Parent Seed	
2.A.1.7 Consumables requisition and receipt			
1) Prepare indent for the following based on approved parent seed production plan and send to stores, <ul style="list-style-type: none"> • Packing materials • Gunny bags • Treatment chemicals • Stationaries 	Unit supervisor	Manager-Parent Seed	Head – Commercial & Parent Seed Cotton
2) Receive the materials from stores and check the receipt	Unit supervisor	Manager-Parent Seed	
3) In case of any deviation, inform to stores for corrective action	Unit supervisor	Manager-Parent Seed	
4) If no deviation, inward the materials and update receipt in software	Data entry operator	Manager-Parent Seed	

2.A.2 PARENT SEED PRODUCTION



Sub-process Owner:

Parent Seed - Manager

Departments Involved:

Parent Seed

Stores

IT

Key activities:

- 2.A.2.1 Field preparation and sowing
- 2.A.2.2 Field Inspection and Recommendation
- 2.A.2.3 Roguing
- 2.A.2.4 Pre-arrangement for Harvesting
- 2.A.2.5 Harvesting, Drying and Kapas movement

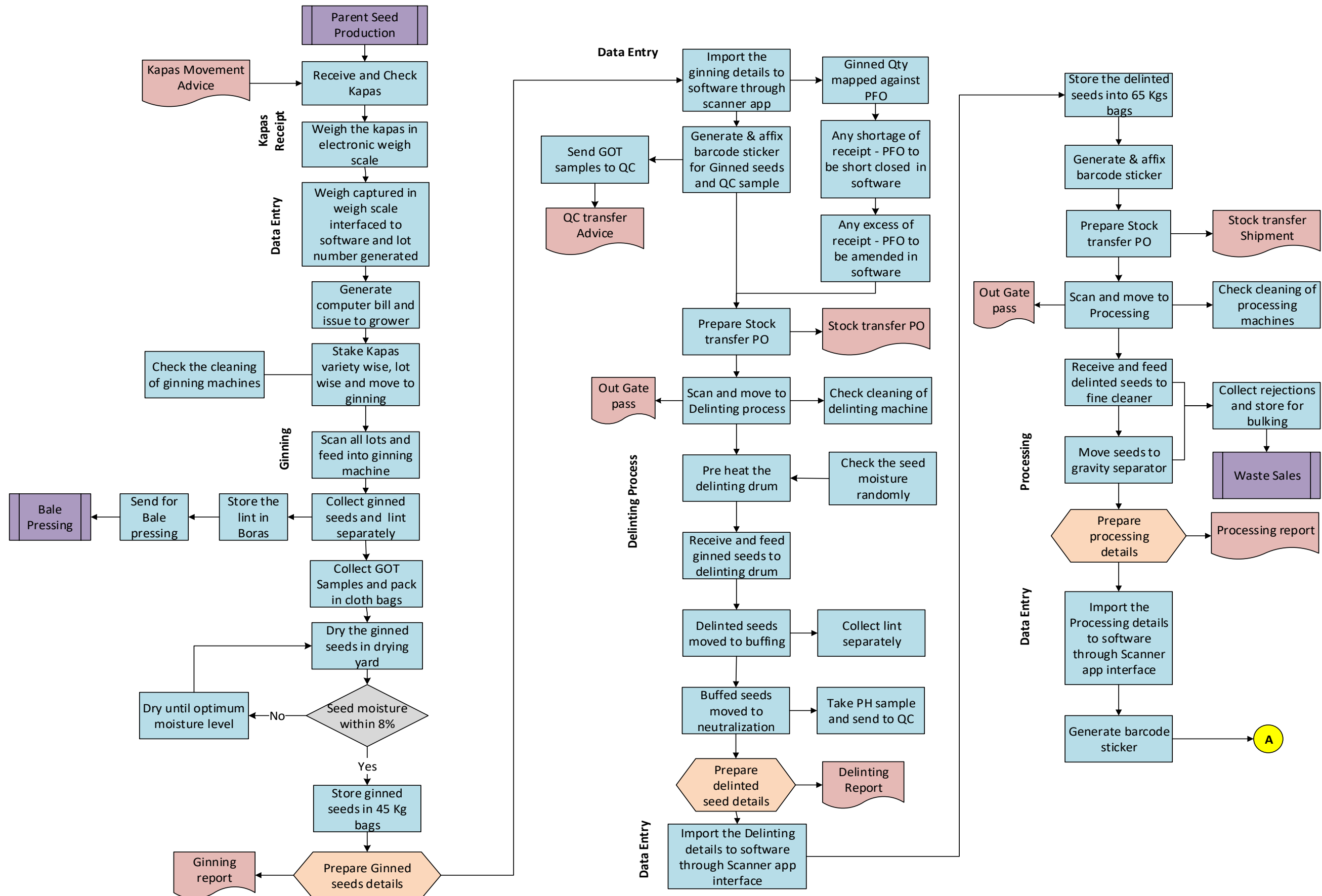
Activity	Maker	Checker	Approver
2.A.2.1 Field preparation and sowing			
1) Instruct the farmer to apply Farm yard manure and Basal fertilizer in seed production plot to ensure the fertility of the field.	Field Supervisor/assistant	Assistant Manager	
2) Instruct the farmer to make ridges and furrows based on the recommended spacing	Field Supervisor/assistant	Assistant Manager	
3) Instruct the grower to sow the seed with optimum Depth of sowing 3 to 5 cm	Field Supervisor/assistant	Assistant Manager	
4) Recommend grower to apply weedicide if needed within 48 hours	Field Supervisor/assistant	Assistant Manager	
5) Recommend the farmer to apply life irrigation on 3rd day and inspect the same to ensure the good germination.	Field Supervisor/assistant	Assistant Manager	
6) Prepare the sowing report grower-wise based on field inspection and germination <ul style="list-style-type: none"> • Grower Code • Grower Name • Father Name • Village • Variety • Area • Sown Date – Male/Female • Male/Female – Area, Used Seed Qty, Lot No • Previous Crop • Survey Number • Mobile number • AADHAAR 	Field Supervisor/assistant	Assistant Manager	

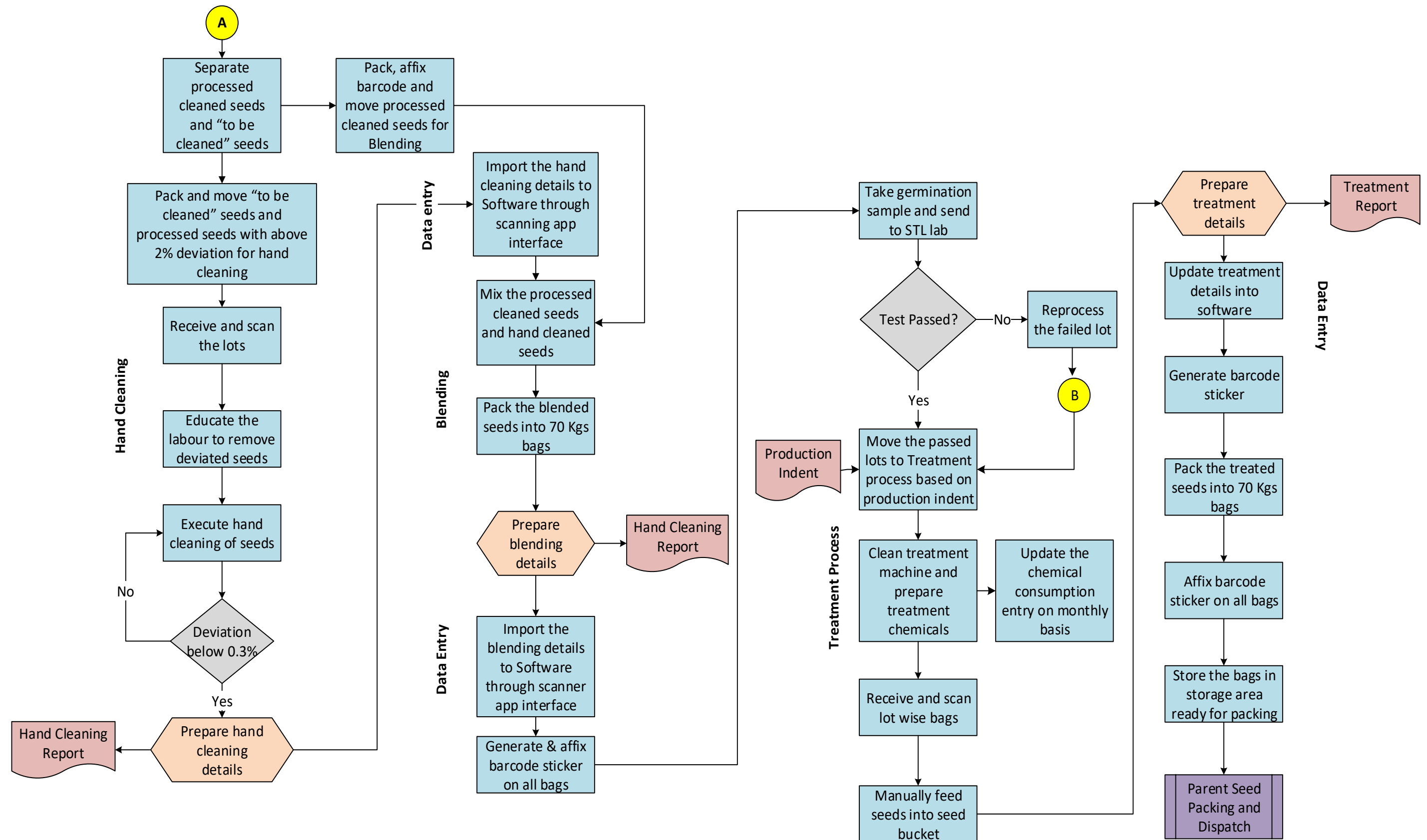
Activity	Maker	Checker	Approver
7) Submit the sowing report to unit for data entry	Field Supervisor/assistant	Assistant Manager	
8) Based on sowing report generate production field order number with an approximate ginning qty in software	Data entry operator	Assistant Manager	
9) Update the sowing report details into software	Data entry operator		
10) Update stock consumption entry in software based on sowing report	Data entry operator		
11) Sowing report to be sent to Assistant Manager for verification and confirmation on daily basis	Data entry operator	Assistant Manager	
12) Deviations & Corrections in the sowing report is communicated to data entry operator by Assistant Manager with the knowledge of Manager	Assistant Manager	Parent Seed - Manager	
13) Update corrections in the software as per the instruction of Assistant manager	Data entry operator	Assistant Manager	
14) Generate bar code sticker for grower passbook	Data entry operator	Assistant Manager	
15) Distribute the grower passbook with barcode sticker to the field staffs to be given to concerned farmers	Unit Supervisor/Assistant Manager	Parent Seed - Manager	
16) Generate Item wise stock and check the completeness of all entries into the system on a daily basis	Data entry operator	Parent Seed - Manager	
2.A.2.2 Field inspection and recommendation			
1) Field visit to be made once in a week to check the crop growth and recommend proper pesticides, growth regulators and Fertilizer	Field Supervisor/assistant	Assistant Manager	
2) Observe the off types in every visit and remove immediately from the field.	Field Supervisor/assistant	Assistant Manager	
3) Update the field inspection in field inspection report and follow the agronomy schedule	Field Supervisor/assistant	Assistant Manager	
4) Field visit to be made by respective cotton breeder to ensure the purity of crops (Parental Characters) in the field (60 Days crop)	Cotton Breeder	Parent Seed - Manager	
5) Field visit to be made by respective cotton breeder to ensure the continuity of respective variety in the field (100 Days crop)	Cotton Breeder	Parent Seed - Manager	
2.A.2.3 Roguing			
1) Collect the varietal characters from concerned Breeders	Field	Assistant	

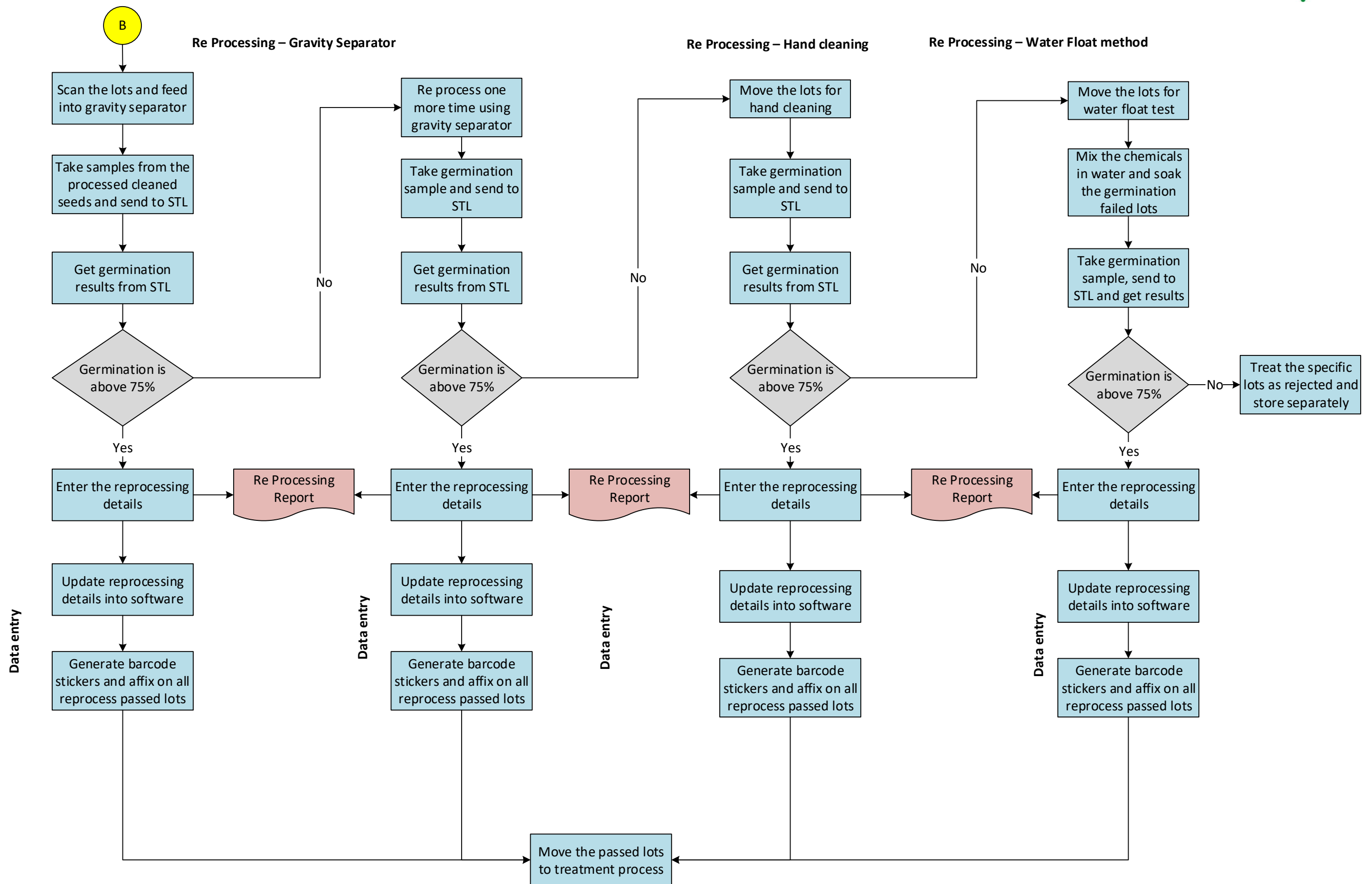
Activity	Maker	Checker	Approver
	assistants/ Supervisor	Manager	
2) Train the roguing team properly about parent character	Field assistants/ Supervisor	Assistant Manager	
3) Roguing done by mass walking row by row in 4 stages: 1. Vegetative stage - 20 - 45 days 2. 50% Flowering - 46 to 60 days 3. Peak flowering - 61 to 75 days 4. Before boll bursting – 76 to 100 days	Assistant Manager Field Supervisor/ assistant	Parent Seed - Manager/ QC Field staffs	
4) Update the roguing details in roguing report <ul style="list-style-type: none"> • Stage • Off type details • Staff name 	Field Supervisor/ assistant	Assistant Manager	
2.A.2.4 Pre-arrangements for Harvesting			
1) Plan for gunny bags, bar code label and label, based on yield position	Assistant Manager	Parent Seed - Manager	
2) If sufficient quantities are not available, place indent in stores depending on the yield quantity	Assistant Manager	Parent Seed - Manager	Head Commercial & Parent Seed Cotton
3) Verify the harvest produce in grower field and give recommendation slip to get bags from company. Instruct the farmer to bring the passbook along while getting the bags.	Field Supervisor/ assistant	Assistant Manager	
4) In unit verify the details while issuing the gunny bags and enter the no. of bags issued details in to the grower pass book with gate pass entry	Unit Supervisor	Parent Seed - Manager	
2.A.2.5 Harvesting, Drying and Kapas Movement			
1) Inform the farmer to harvest the produce when it comes to physiological maturity stage	Field Supervisor / assistant	Assistant Manager	-
2) Instruct the farmers to dry the harvest to maintain the optimum seed moisture	Field Supervisor / assistant	Assistant Manager	-
3) Store the produce in gunny bags to avoid contamination and stake in good ventilated and dry place	Field Supervisor / assistant	Assistant Manager	-
4) Provide information to data entry operator for generating bar code stickers based on the harvest produce	Field Supervisor / assistant	Assistant Manager	
5) Generate Bar code sticker from software based on the harvest produce input given by Field staffs	Data entry operator	Manager	

Activity	Maker	Checker	Approver
6) Distribute the bar code stickers based on farmers requirement	Field Supervisor / assistant	Assistant Manager	
7) Prepare kapas arrival plan to ensure proper processing	Unit Supervisor	Manager	-
8) Each and every bag should be properly labelled grower-wise and the label should have the following details: <ul style="list-style-type: none"> • Grower code • Variety name • Bar code number • Date • No. of bags • FA name Place the inner label inside the gunny bag -Must keep the inner label which contain the Variety code and Grower code.	Field Supervisor / assistant	Assistant Manager	-
9) Ensure all the barcode labels are in sequential order before moving to unit.	Field Supervisor / assistant	Assistant Manager	
10) Move the produce from grower field to processing unit along with pass book and kapas movement advice with following details, <ul style="list-style-type: none"> • Date & Time • PFO No • Farm Code • Variety • Grower's Address • Label no's from and to • No of gunnies • Send to Unit No • No of gunnies returned • Name of field assistant • Status – Partial/Completed 	Field Supervisor / assistant	Assistant Manager	

2.A.3 PARENT SEED - PROCESSING







Sub-process Owner:

Manager – Parent Seed

Departments Involved:

Parent Seed
Stores
IT
QC

Key activities:

- 2.A.3.1 Kapas Receipt
- 2.A.3.2 Ginning
- 2.A.3.3 Online delinting and processing
- 2.A.3.4 Neutralization and drying process
- 2.A.3.5 Fine Cleaner
- 2.A.3.6 Gravity Separator
- 2.A.3.7 Hand cleaning
- 2.A.3.8 Blending
- 2.A.3.9 Re-Processing
- 2.A.3.10 Seed treatment and Drying Process

Activity	Maker	Checker	Approver
2.A.3.1 Kapas Receipt			
1) Receive the produce in form of Kapas from grower's field	Unit Supervisor	Assistant Manager	
2) Check the following details in kapas movement advice slip, <ul style="list-style-type: none"> • Grower code • PFO number • Production code • Barcode starting and ending number • No of gunny bags with kapas • No of returned gunny bags • Lot Status – Partial/Completed 	Unit Supervisor	Assistant Manager	
3) Weigh the kapas in electronic weigh scale and weight details interfaced to software	Unit Supervisor	Assistant Manager	
4) After weight capturing system generate lot number	Data entry operator	Unit Supervisor	
5) Generate computer bill from software	Data entry operator	Unit Supervisor	
6) The computer bill should be verified and made signature on the receipt, before giving the bill to grower.	Unit Supervisor	Assistant Manager	
7) Security person should check the computer bill and affix the seal and hand over to grower	Security	Unit Supervisor	
8) Stake the lots in order to be issued for Ginning process	Unit Supervisor	Assistant Manager	

Activity	Maker	Checker	Approver
2.A.3.2 Ginning			
1) Check full machine cleaning, floor, and conveyor before ginning	Unit Supervisor/Ginning operators	Assistant Manager/Unit Supervisor	
2) Arrange and scan the lot wise kapas before ginning	Unit Supervisor	Assistant Manager	
3) Kapas has to be equally distributed in each ginning machine and care should be taken to see that no gin should run without any kapas	Unit Supervisor/Ginning operators	Assistant Manager/Unit Supervisor	
4) Check the cut seed % of each gin daily with the optimum level below 0.5% for each variety wise.	Unit Supervisor/Ginning operators	Assistant Manager/Unit Supervisor	
5) Lint from every lot has to be bagged in bora and weighed separately	Unit Supervisor/Ginning operators	Assistant Manager/Unit Supervisor	
6) Store the collected lint and keep it separately to be sent to bale pressing	Unit Supervisor/Ginning operators	Assistant Manager/Unit Supervisor	
7) Collect ginned seeds separately and Collect two replications of 500gm of ginned seeds for GOT test & reserved sample and store them in sample cloth bags	Unit Supervisor/Ginning operators	Assistant Manager/Unit Supervisor	
8) Write the variety code on the GOT sample Bag	Unit Supervisor/Ginning operators	Assistant Manager/Unit Supervisor	
9) Dry the ginned seeds in the drying yard using gunny bag bordering method with the optimum moisture level of 7% to 8 %	Unit Supervisor/Ginning operators	Assistant Manager/Unit Supervisor	
10) Every ginned seeds have to be weighed in 45kg bags and each bag has to be stitched and labeled.	Unit Supervisor/Ginning operators	Assistant Manager/Unit Supervisor	
11) Update following details in ginning report <ul style="list-style-type: none"> • PFO No • Variety • Grower code • Lot No • Kapas quantity • Ginned seed quantity • Lint quantity • Loss % and quantity • Remarks • Date 	Unit Supervisor/Ginning operators	Assistant Manager/Unit Supervisor	
12) Import the ginning details into software through scanner app interface	Data entry operator	Assistant Manager/Unit Supervisor	

Activity	Maker	Checker	Approver
13) Ginned seed actual quantity to be mapped against the PFO. If any shortage in ginned quantity against the PFO then the same should be short closed in software	Data entry operator	Manager – Parent Seed	
14) If any excess quantity of ginned seeds against the PFO then amendment has to be made in software	Dy. Manager Accounts	Manager – Parent Seed	
15) Generate Lot wise bar code sticker from software as well as for QC samples	Data entry operator	Assistant Manager/Unit Supervisor	
16) Prepare stock transfer shipment to QC	Data entry operator	Assistant Manager/Unit Supervisor	
17) Affix barcode stickers on GOT sample bags and submit the samples along with the GC transfer list to quality control department on daily basis <ul style="list-style-type: none"> • Lot Number • Item code • Transaction Document No 	Unit Supervisor/Ginning operators	Assistant Manager/Unit Supervisor	
18) Affix bar code stickers on the particular tags for all bags to be moved to delinting process	Unit Supervisor/Ginning operators	Assistant Manager/Unit Supervisor	
19) Scan all lots and prepare Internal transfer advice and move the bags to delinting process with gate pass	Unit Supervisor/Ginning operators	Assistant Manager/Unit Supervisor	
20) Rolling cut should be done every 100 hours of machine running	Unit Supervisor/Ginning operators	Assistant Manager/Unit Supervisor	
21) Generate ginning done report from software and verify on daily basis	Manager		
2.A.3.3 Delinting process			
1) Clean the machines thoroughly for every variety change	Delinting Operators	Assistant Manager/Unit Supervisor	
2) Check ginned seed moisture within 7% to 8 %	Delinting Operators	Assistant Manager/Unit Supervisor	
3) Arrange and scan the lot wise ginned seeds before on line delinting process	Delinting Operators	Assistant Manager/Unit Supervisor	
4) Load the ginned seeds in feeding trolley by using dumper	Delinting Operators	Assistant Manager/Unit Supervisor	
5) Pre heat the delinting drum at-40* C TO 42* C to enhance delinting process	Delinting Operators	Assistant Manager/Unit	

Activity	Maker	Checker	Approver
		Supervisor	
6) Pass HCL gas from gas storage tank to delinting drum (0.8 to 1kg for 400kg) & (0.4 to 0.6 kg for 200kg)	Delinting Operators	Assistant Manager/Unit Supervisor	
7) Send the delinting seed to buffing unit	Delinting Operators	Assistant Manager/Unit Supervisor	
8) Filter the lint through screen (size-2.25mm) and collect it in the cyclone by high efficiency suction fan.	Delinting Operators	Assistant Manager/Unit Supervisor	
9) Move the buffed seed from the buffer unit to neutralization process	Delinting Operators	Assistant Manager/Unit Supervisor	
10) Collect the Lint outside the delinting Godown	Delinting Operators	Assistant Manager/Unit Supervisor	
2.A.3.4 Neutralization and drying process			
1) Set the seed rate and chemical application rate (15ml/kg) in the PLC control panel	Delinting Operators	Assistant Manager/Unit Supervisor	
2) Monitor the treatment quality	Delinting Operators	Assistant Manager/Unit Supervisor	
3) If found any untreated seed take corrective action and re treat the seed for getting correct PH	Delinting Operators	Assistant Manager/Unit Supervisor	
4) Submit the PH sample in STL Laboratory for each lot with the optimum P H range 6 % TO 7%	Delinting Operators	Assistant Manager/Unit Supervisor	
5) Reduce the seed moisture gained using vertical dryer during neutralization process by using hot air (40° TO 42°)	Delinting Operators	Assistant Manager/Unit Supervisor	
6) Check the seed moisture	Delinting Operators	Assistant Manager/Unit Supervisor	
7) If found any seed that attains moisture level of 7.5% then slowly discharge the seed in to pre-cleaner elevator	Delinting Operators	Assistant Manager/Unit Supervisor	
8) Check the moisture before and after neutralization based on the ambient temperature	Delinting Operators	Assistant Manager/Unit Supervisor	
9) Record delinting details in Delinting report as follows,	Delinting	Assistant	

Activity	Maker	Checker	Approver
<ul style="list-style-type: none"> Date Variety LOT No Ginned Seed Delinted Seed Loss quantity Loss % Remarks 	Operators	Manager/Unit Supervisor	
10) Import the delinting details into software through scanner app interface	Data entry operator	Unit Supervisor	
11) Generate bar code sticker from software	Data entry operator	Unit Supervisor	
12) Pack the Delinted seeds into 65 Kg bags and affix barcode stickers on each bag and Insert tags inside the bags	Unit Supervisor	Assistant Manager	
13) Scan each lot, prepare Internal transfer advice (ITA) and move the bags to processing with gate pass	Unit Supervisor	Assistant Manager	
14) Generate delinting done report from software and verify the same on daily basis	Manager		
2.A.3.5 Fine Cleaner			
1) Clean the machines before seed grading	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
2) Select correct size of screens and insert into sieve boat	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
3) Adjust the grader based on the following <ul style="list-style-type: none"> Feeding rate Pre-aspiration Fine aspiration 	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
4) Scan all the lots and check for the variety and other required details	Unit Supervisor	Assistant Manager	
5) Feed the Delinted cotton seeds into grading machine	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
6) Open hopper slide gate gradually until proper flow rate is achieved and make adjustment for material flow rate & aspiration	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
7) Check the seed material is spread well on the screen	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
8) Inspect the waste product from the screw conveyor.	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
9) Analyze the waste and good product	Processing	Assistant	

Activity	Maker	Checker	Approver
	Operator/Unit Supervisor	Manager/Unit Supervisor	
10) Repeat until the maximum separation is done	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
11) Collect the fine cleaner rejection	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
12) Move the seeds to gravity adjustments	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
13) Collect the rejections in the rejection outlet and bulk the rejections for waste sales	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
2.A.3.6 Gravity Separator			
1) Gravity Adjustments should be made based on the following <ul style="list-style-type: none"> • Feed rate • Air control • End raise • Side Tilt • Eccentric speed 	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
2) Feed the seeds into gravity adjustment machine	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
3) Open the hopper slide until proper flow rate is achieved	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
4) Adjust the material flow rate and air volume	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
5) Confirm good material is seated on the deck and reject the material floating on the deck In Gravity three levels of output were received <ul style="list-style-type: none"> • High end seeds – Rough and Good seed • Middling seeds – Good and weighted rejection • Low end gravity seeds – Rejection 	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
6) Inspect the waste from rejected chute	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
7) Analyze the waste and middling product	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	

Activity	Maker	Checker	Approver
8) Adjust the cutting finger according to the result, until maximum separation is done	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
9) Assure high end seeds are cleaned and sorted	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
10) Enter the processing details in processing report as follows, <ul style="list-style-type: none"> Variety LOT No Delinted Seed Process Cleaned Seed Rough cleaned seed To be Seed Rejections – Grader, Gravity, IT, Total Loss % Remarks 	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
11) Import the Processing details into software through scanner app interface	Data entry operator	Assistant Manager/Unit Supervisor	
12) Generate bar code sticker from software	Data entry operator	Assistant Manager/Unit Supervisor	
13) Pack the processed seeds into 70 Kgs bag	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
14) Stitch the bags with label containing the following, <ul style="list-style-type: none"> Variety Lot number Number of bags Bar code sticker 	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
15) Move the processed seeds with more than 2% deviation and to be cleaned seeds for hand cleaning process	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
16) Move the processed cleaned seeds for blending process	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
17) Collect the rejections in the rejection outlet and bulk the rejections for waste sales	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
18) Generate processing done report from software and verify on daily basis	Manager		
2.A.3.7 Hand Cleaning			
1) Clean the floor thoroughly before hand cleaning process	Cleaning	Assistant	

Activity	Maker	Checker	Approver
	labours	Manager/Unit Supervisor	
2) Arrange the following items before hand - cleaning <ul style="list-style-type: none"> Lot wise stock Scanner Processed seed movement to hand cleaning hall 	Unit Supervisor	Assistant Manager	
3) Check gunny bag bordering and heap identification tag	Unit Supervisor	Assistant Manager	
4) Check and scan the lots and distribute the seeds roughly for hand cleaning	Assistant Manager/Unit Supervisor	Assistant Manager/Unit Supervisor	
5) Educate the labor what are types of dead, immature, cut and discolored seed to be removed from the lot	Unit Supervisor	Assistant Manager	
6) Check the cleaned seed quality	Unit Supervisor	Assistant Manager	
7) Dead, cut, discolored seed below 0.3% should pass to next process. Deviation above 0.3 % are subjected to recleaning	Unit Supervisor	Assistant Manager	
8) Update the details in hand cleaning report as follows, <ul style="list-style-type: none"> Date Variety LOT No To be cleaned Qty Clean Qty Loss Process Clean Qty Loss 	Unit Supervisor	Assistant Manager	
9) Import the hand cleaning details into software through scanner app	Data entry operator	Unit Supervisor	
10) Move the hand cleaned seeds for blending	Unit Supervisor	Assistant Manager	
11) Collect the rejected seeds and bulk the same for waste sales	Unit Supervisor	Assistant Manager	
12) Generate hand cleaning done report from software and verify on daily basis			
2.A.3.8 Blending			
1) Arrange the following before blending process, <ul style="list-style-type: none"> Processed seed lot wise stock Scanner Hand cleaned seed movement to hand cleaning hall 	Unit Supervisor	Assistant Manager	
2) Check and scan <ul style="list-style-type: none"> To be cleaned seed Processed cleaned seed 	Unit Supervisor	Assistant Manager	
3) Mix the following thoroughly by manual method,	Cleaning	Unit	

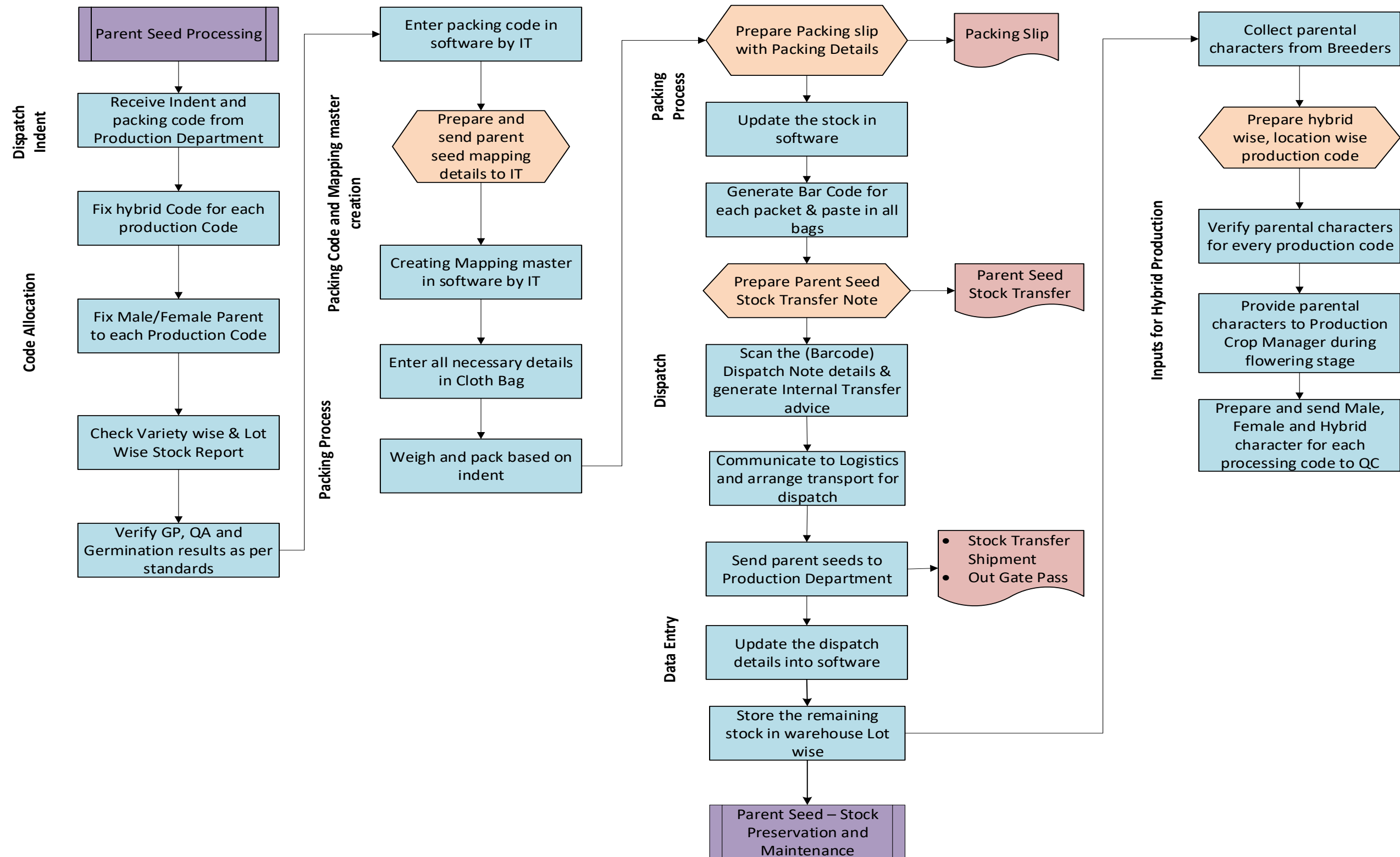
Activity	Maker	Checker	Approver
<ul style="list-style-type: none"> To be cleaned seed Processed cleaned seed 	labours	Supervisor	
4) Take germination samples and submit the samples in the seed testing laboratory with acknowledgement	Unit Supervisor	Assistant Manager	
5) If the sample failed the test then the particular lot has to be reprocessed	Unit Supervisor	Assistant Manager	
6) Weigh the seeds into 70 Kgs bags	Cleaning labours	Unit Supervisor	
7) Update the blending details in Hand cleaning report <ul style="list-style-type: none"> Blending Taken Qty Blended Qty Loss Loss % Remarks 	Unit Supervisor	Assistant Manager	
8) Import the blending details into software through scanner app interface	Data entry operator	Unit Supervisor	
9) Generate bar code sticker from software	Data entry operator	Unit Supervisor	
10) Stitch the bags with label containing the following, <ul style="list-style-type: none"> Variety Lot number Number of bags Bar code sticker 	Cleaning labours	Unit Supervisor	
11) Move the germination passed lots to treatment process based on production indent	Cleaning labours	Unit Supervisor	
12) Generate blending report from software and verify on daily basis	Manager		
2.A.3.9 Re-Processing			
1) Scan the variety wise lot to be reprocessed	Unit Supervisor	Assistant Manager	
2) Perform the reprocessing operation for variety wise lots <ul style="list-style-type: none"> Gravity Separator 	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
3) Take samples from reprocessed lots and send to STL lab for checking germination.	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
4) Get germination results from STL Lab and check if the results are within standard then move the lots for next process	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
5) If the results are not within the standard the reprocess the lots until it reaches the germination standards	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
6) Are Still the germination standards not attaining move	Unit	Assistant	

Activity	Maker	Checker	Approver
the seeds to hand cleaning	Supervisor	Manager	
7) Receive the lots from gravity separator and perform hand cleaning	Unit Supervisor	Assistant Manager	
8) Remove the dead seed, cut seed, discolored seed separately and take germination sample from the hand cleaned seed	Unit Supervisor	Assistant Manager	
9) Get germination results from STL Lab and check if the results are within standard then move the lots for next process	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
10) If the results are not within the standard then move the seeds for water floating process	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
11) Fill the drums with water and mix the following chemical and soak it for half an hour	Unit Supervisor	Assistant Manager	
12) Put the seeds into the mixture and After certain time take out the seeds from the mixture and dry the seeds	Unit Supervisor	Assistant Manager	
13) Draw germination sample and send to STL lab	Unit Supervisor	Assistant Manager	
14) Get germination results from STL Lab and check if the results are within standard then move the lots for next process	Unit Supervisor	Assistant Manager	
15) If the results are not within the standard then reject the lots and store separately	Unit Supervisor	Assistant Manager	
16) Enter the reprocessing details into reprocessing report <ul style="list-style-type: none"> • Date • Variety • LOT No • Taken Qty • Reprocess Seed Qty • Loss • Loss % • Remarks 	Processing Operator/Unit Supervisor	Assistant Manager/Unit Supervisor	
17) Import the reprocessing details into software through scanner app interface	Data entry operator	Unit Supervisor	
18) Generate bar code stickers for reprocessed lots	Data entry operator	Unit Supervisor	
19) Pack the reprocessed seeds into 70 Kgs bags, stitch and affix the label contains the following, <ul style="list-style-type: none"> • Variety • Lot number • No of bags • Barcode sticker 	Unit Supervisor	Assistant Manager	
20) Move the bags to treatment process	Unit Supervisor	Assistant Manager	

Activity	Maker	Checker	Approver
21) Generate reprocessing report from software and verify on daily basis	Manager		
2.A.3.10 Seed Treatment & Drying Process			
1) Clean the machine fully before changing each variety	Treatment Operator	Unit Supervisor	
2) Check and weigh the chemicals like insecticide, fungicide, polymer and water as per standard	Treatment Operator	Unit Supervisor	
3) Mix the chemicals, filter and pour it into the seed treating chemical drum	Treatment Operator	Unit Supervisor	
4) Check and scan the lots before feeding	Unit Supervisor	Assistant Manager	
5) Check and set the seed rate and chemical application rate in the PLC control panel	Treatment Operator	Unit Supervisor	
6) Start the machine and manually feed the seeds into the seed bucket	Treatment Operator	Unit Supervisor	
7) Check each batch seed coating, if untreated seed comes stop the machine and clean the chemical dosing tubes	Treatment Operator	Unit Supervisor	
8) Check the initial seed moisture	Treatment Operator	Unit Supervisor	
9) Check ambient temperature and relative humidity	Treatment Operator	Unit Supervisor	
10) Check the seed moisture optimum level to be attained 7.5%	Treatment Operator	Unit Supervisor	
11) Discharge the seed slowly and standardize the weight	Treatment Operator	Unit Supervisor	
12) Record the details in treatment report <ul style="list-style-type: none"> • Date • Variety • LOT No • Qty taken for treatment • Qty treated • Balance Qty 	Treatment Operator	Unit Supervisor	
13) Import the chemical treatment details into software through scanner app	Data entry operator	Unit Supervisor	
14) Generate bar code sticker	Data entry operator	Unit Supervisor	
15) Pack the treated seeds into 70 Kgs bags	Treatment Operator	Unit Supervisor	
16) Stitch the bags and affix labels on each bag contains the following, <ul style="list-style-type: none"> • Variety • Lot number • No of bags • Barcode sticker 	Treatment Operator	Unit Supervisor	

Activity	Maker	Checker	Approver
17) Store the treated bags in storage area which are ready for packing and dispatch	Unit Supervisor	Assistant Manager	
18) Generate treatment report from software and verify on daily basis	Manager – Parent Seed		
19) Update the chemical consumption in software on monthly basis	Data entry operator	Manager – Parent Seed	

2.A.4 PARENT SEED PACKING AND DISPATCH



Sub-process Owner:

Manager – Parent Seed

Departments Involved:

Parent Seed
R & D
Stores
Production – Cotton
IT
QC

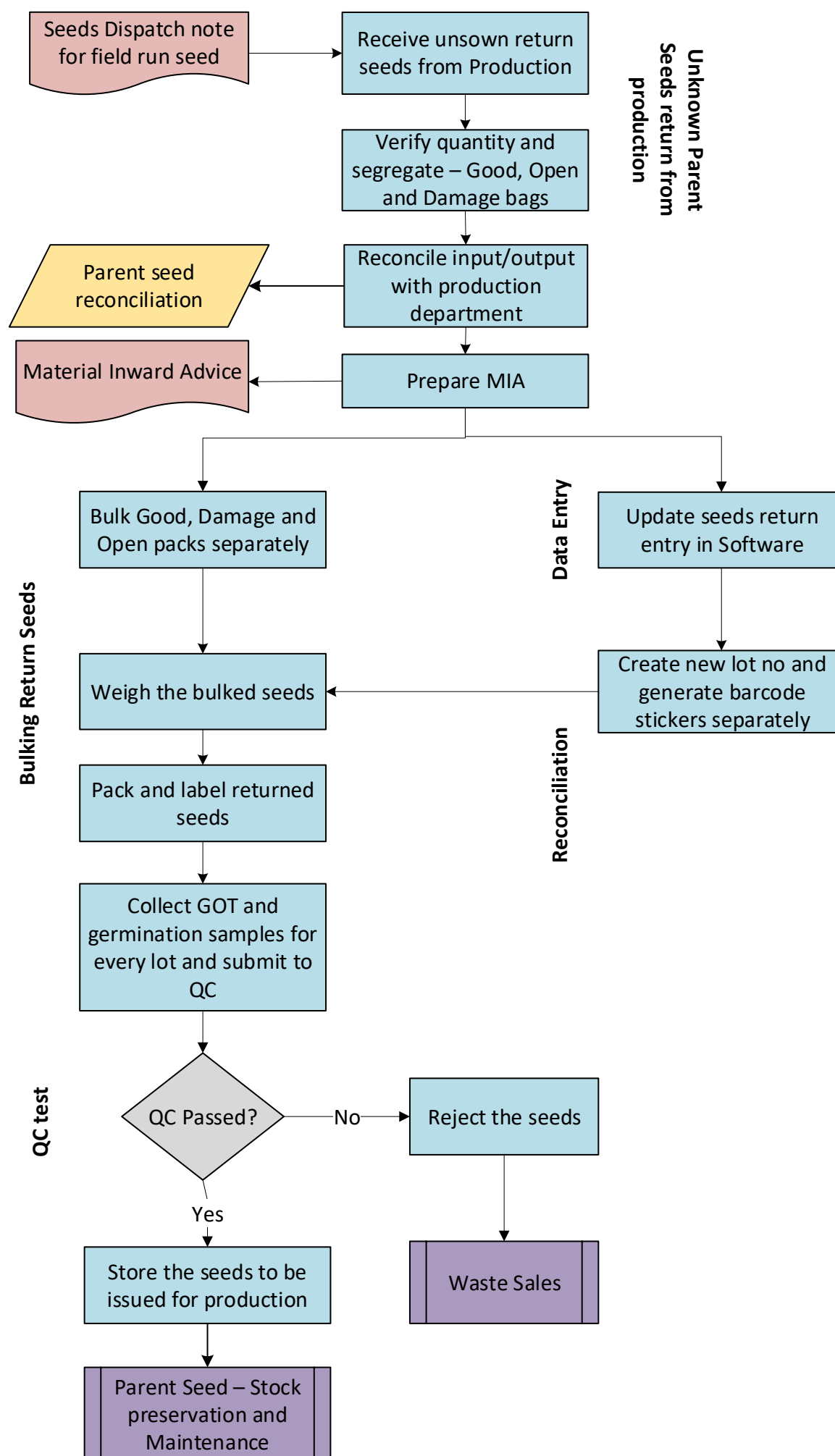
Key activities:

- 2.A.4.1 Packing
- 2.A.4.2 Dispatch
- 2.A.4.3 Inputs for Hybrid Production & QC

Activity	Maker	Checker	Approver
2.A.4.1 Packing			
1) Receive indent with hybrid wise packing code from production department for packing	Parent Seed - Manager	Head – Commercial & Parent Seed Cotton	
2) The following steps to be considered for standard or grower wise packing <ul style="list-style-type: none"> Fix the hybrid code vs Production code Fix the actual Male/Female parent to every production code 	Parent Seed - Manager		
3) Get confirmation from concerned breeder for Hybrid and its parent	Parent Seed - Manager	Cotton Breeder – R & D	
4) Take variety wise and lot wise stock report for packing and verify the GP, QA and germination results before packing	Parent Seed - Manager		
5) Send packing code approval to IT department and create packing item code in system	Parent Seed - Manager		
6) Prepare and send the parent seed mapping details to IT for creating mapping master	Parent Seed - Manager		
7) Create Parent seed mapping master in software	IT Executive	Parent Seed – Manager	
8) Write the cloth bag before packing with packing code, Male or female, Acre, seed quantity and lot number	Packing staff/Labours		
9) Weigh every bag as per the indent and stitch with bag closer	Packing staff/Labours		
10) Pack the male and female seeds separately in gunny bags according to the indent	Packing staff/Labours		
11) Prepare packing slip with details of packing	Unit Supervisor	Parent Seed – Manager	
12) Update packing slip details into software	Data entry operator	Parent Seed – Manager	

Activity	Maker	Checker	Approver
13)Generate bar code labels for every packet and paste in the cloth bag	Data entry operator	Parent Seed – Manager	
14)Prepare parent seed stock transfer note having the details of packing code, Male / Female, lot no., Packing size, no. of packets, total quantity, total acre, GP and Germination	Unit Supervisor	Parent Seed - Manager	
15)Loading the dispatch note details in the scanner before dispatch	Unit Supervisor	Parent Seed - Manager	
2.A.4.2 Dispatch			
1) After scanning, prepare stock transfer shipment in software to be transferred to respective production warehouse	Data entry operator	Parent Seed - Manager	
2) Communicate to logistics for transportation to dispatch the seeds	Unit Supervisor	Parent Seed - Manager	
3) Store the remaining bags in warehouse	Unit Supervisor	Parent Seed - Manager	
2.A.4.3 Inputs for Hybrid Production & Processing			
1) Collect parental characters from concern breeders	Parent Seed - Manager	Head – Commercial & Parent Seed Cotton	
2) Prepare actual hybrid wise and location wise production code details	Parent Seed - Manager		
3) Verify the parent details for every production code	Parent Seed - Manager		
4) Provide the parental characters for all the production code location wise to concern production in charge for roguing	Parent Seed - Manager	Head – Commercial & Parent Seed Cotton	
5) Prepare and provide male, female and hybrid F1 character for each processing code to quality control department	Parent Seed - Manager	Head – Commercial & Parent Seed Cotton	

2.A.5 UNSOWN PARENT SEEDS RETURN BULKING



Sub-process Owner:

Manager – Parent Seed

Departments Involved:

Parent Seed

Production – Cotton

QC

Key activities:

2.A.5.1 Unsown seeds return receipt

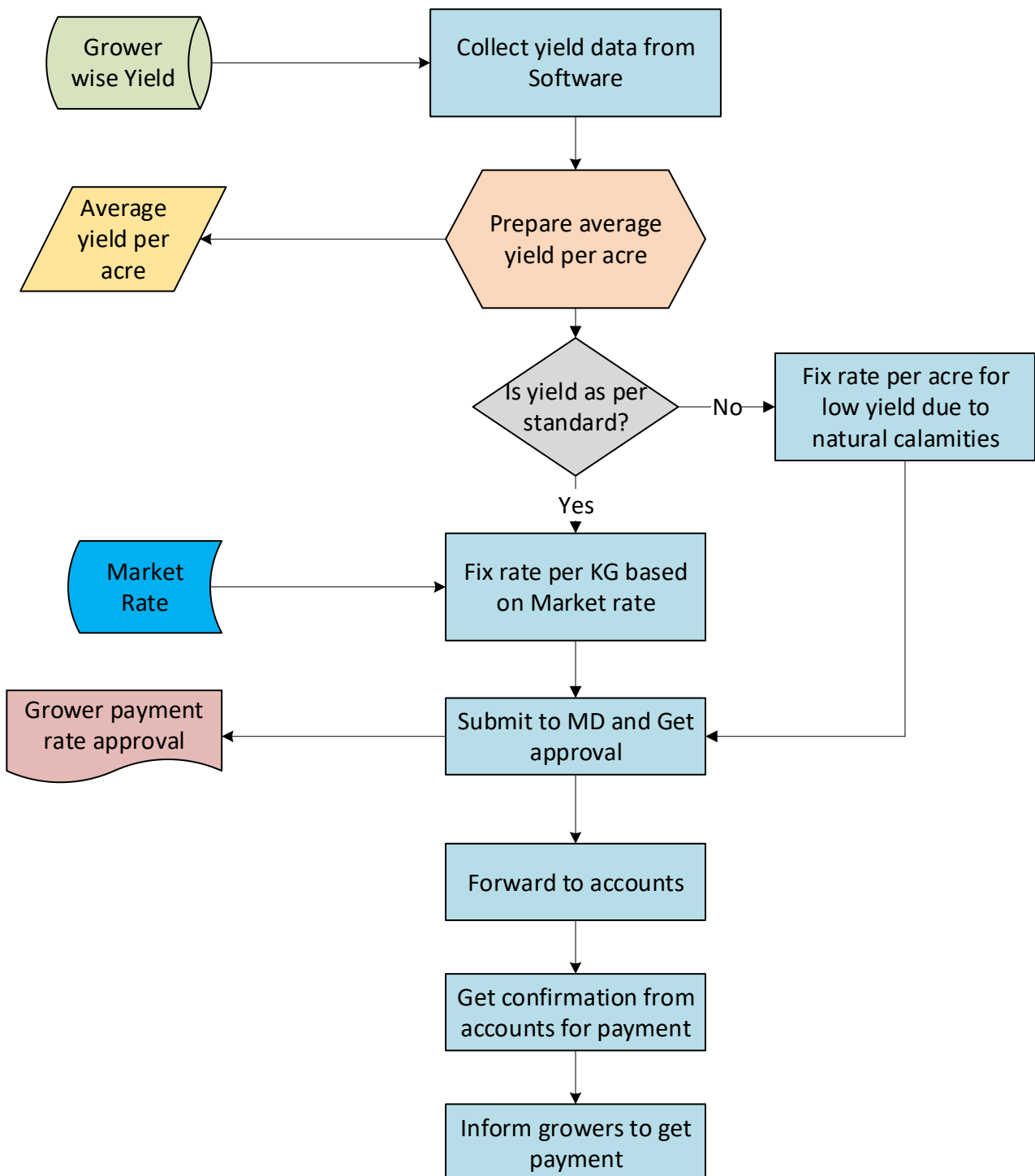
2.A.5.2 Unsown seeds return – Good/Fresh bags bulking

2.A.5.3 Unsown seeds return - Open and Damage bags bulking

Activity	Maker	Checker	Approver
2.A.5.1 Unsown seeds return receipt			
1) Receive the unsown seeds returned from production department after the sowing season through Seeds dispatch note for field run seed	Manager	Production – In charge	
2) Verify the quantity returned with dispatch note	Unit Supervisor	Manager	
3) Separate the material packing code wise male & female packets and, in that segregate, packets based on the lot no mentioned in the bags	Unit Supervisor	Manager	
4) Segregate the good (Fresh), open bag and damage bags	Unit Supervisor	Manager	
5) Prepare parent seed dispatch details variety-wise and location wise	Manager		
6) Prepare parent seed dispatch and return details variety-wise and location wise	Manager		
7) Complete the reconciliation of parent seeds with Regional Production Manager of Production department within twenty days from the end of sowing season.	Manager	Dy. Manager - Accounts	
8) Count the packets packing code-wise and lot-wise and prepare Material Inward Advice with following details, <ul style="list-style-type: none"> • From whom • Date • Time • Rasi Lot No • Variety • Class of Seed • Packing size • Total Packets • Qty 	Unit Supervisor	Manager	
9) Update the return seeds entry in software based on Material inward advice	Data entry operator	Manager	
10) Generate bar code stickers for return seeds from the software	Data entry operator	Unit Supervisor	

Activity	Maker	Checker	Approver
2.A.5.2 Unsown seeds return – Good/Fresh Bags bulking			
1) Verify the packets once again and bulk the good seeds in the storage area separately	Unit Supervisor	Manager	
2) After bulking weigh the bulked seeds	Unit Supervisor	Manager	
3) Create new and separate lot number	Unit Supervisor	Manager	
4) Pack and label the returned seeds with variety, new lot no and quantity	Unit Supervisor	Manager	
5) Collect the fresh GOT and Germination samples for each and every return seed lot and submit to Quality Control department	Unit Supervisor	Manager	
6) Reject the lot failing germination test and keep the lots to be issued for production	Unit Supervisor	Manager	
2.A.5.3 Unsown Seeds return - Open & Damaged bags bulking			
1) Store and bulk the open bag & damaged bags seed together	Unit Supervisor	Manager	
2) After bulking weigh the seeds	Unit Supervisor	Manager	
3) Create new and separate lot number	Unit Supervisor	Manager	
4) Pack and label the returned seeds with variety, new lot no and quantity	Unit Supervisor	Manager	
5) Collect the fresh GOT and Germination samples for each and every return seed lot and submit to Quality Control department	Unit Supervisor	Manager	
6) Reject the lots failing germination test and store the germination passed lots to be issued for production	Unit Supervisor	Manager	

2.A.6 KAPAS RATE FIXATION



Sub-process Owner:

Manager – Parent Seed

Departments Involved:

Parent Seed

Accounts

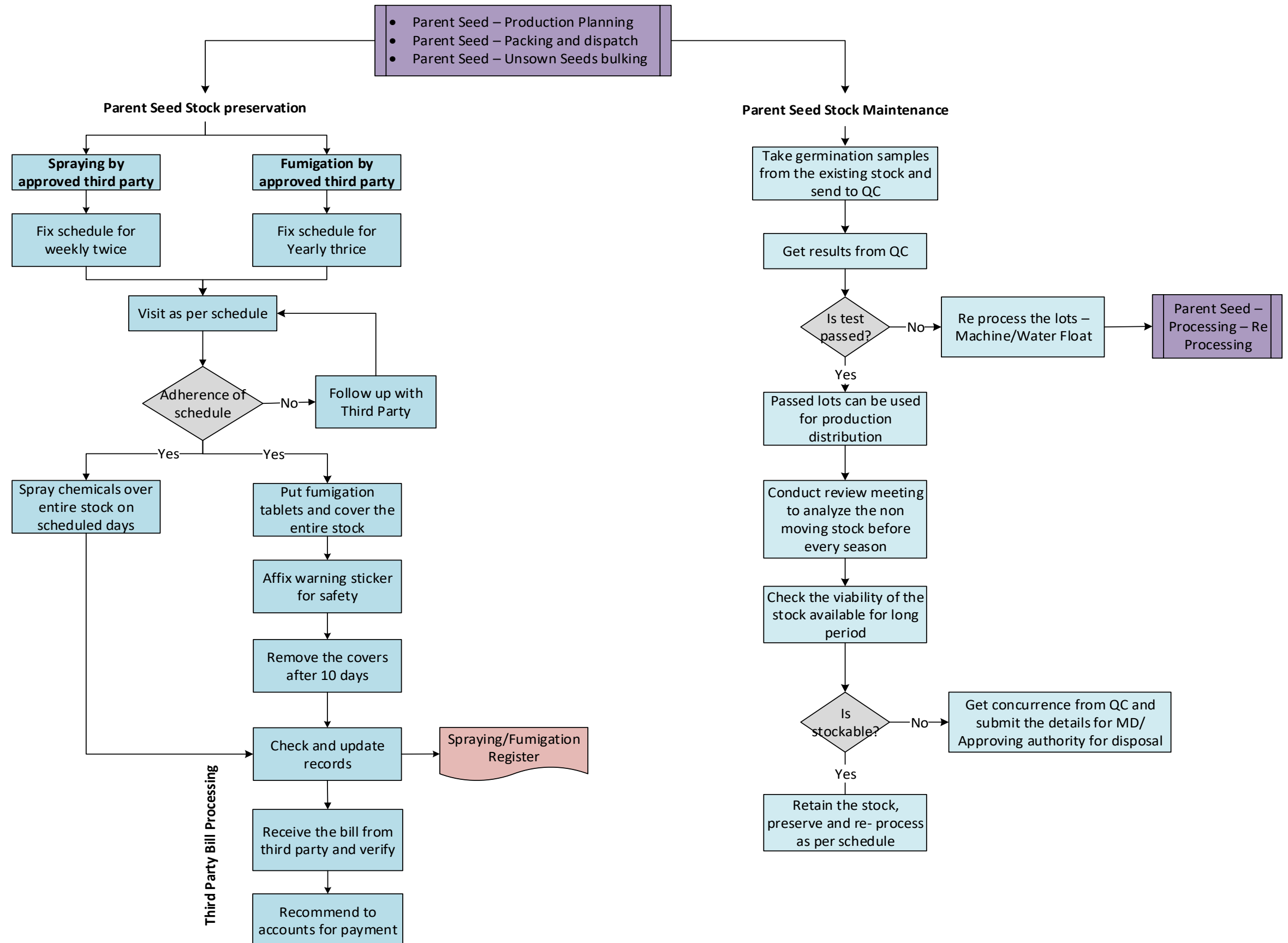
Key activities:

2.6.1 Rate finalization

2.6.2 Grower payment initiation

Activity	Maker	Checker	Approver
2.A.6.1 Rate finalization			
1) Collect the yield data from software based on the seeds received from grower details	Manager – Parent Seed		
2) Prepare the average yield per acre	Manager – Parent Seed		
3) Fix rate per KG basis for the new and existing varieties	Manager – Parent Seed		
4) For varieties from breeder which gives low yield due to natural calamities then fix the rate per acre	Manager – Parent Seed		
5) Send the rate details through GM – Operations for management's approval	Manager – Parent Seed	Head – Commercial & Parent Seed Cotton	Managing Director
2.A.6.2 Grower payment initiation			
1) Send the grower wise receipt or acre details to accounts department along with rate approval copy	Manager – Parent Seed		
2) Get confirmation from accounts department after necessary process from their end	Manager – Parent Seed		
3) Inform the grower to bring weighment bill and grower pass book issued by company without fail to get payments from accounts	Field Supervisors/ Field Assistants		

2.A.7 PARENT SEED STOCK PRESERVATION AND MAINTENANCE



Sub-process Owner:

Manager – Parent Seed

Departments Involved:

Parent Seed

Accounts

Key activities:

2.A.7.1 Spraying

2.A.7.2 Fumigation

2.A.7.3 Stock Maintenance

Activity	Maker	Checker	Approver
2.A.7.1 Spraying			
1) Fix the schedule with third party for chemical spraying on weekly and yearly basis as follows, ➤ Econeem – 90ml/30 Litres of water – Every Monday ➤ Nuvan – 210ml/30 Litres of water – Every Friday ➤ Kobil – 2Kg/30 Litres of water – Yearly two times	Third Party	Manager – Parent Seed	
2) Spray the chemicals using sprayer machine on scheduled day over parent seed stock	Third Party	Manager – Parent Seed	
3) Cross Check and update the spraying details in register	Unit Supervisor	Manager – Parent Seed	
2.7.2 Fumigation			
1) Fix the schedule with approved third party for fumigation three times a year • Aluminium Phospite – 4 Tablets/1MT	Manager – Parent Seed		
2) Conduct fumigation process on the scheduled date	Third Party	Manager – Parent Seed	
3) Put the tablets over parent seed stock and cover the entire stock completely with tarpaulin sheet	Third Party	Manager – Parent Seed	
4) Cover the tarpaulin sheet borders with packing tape in the ground to ensure the chemical gas not exposed	Third Party	Manager – Parent Seed	
5) Place the warning sticker over tarpaulin for safety	Third Party	Manager – Parent Seed	
6) The fumigation process to be continued minimum 8 to 10 days and after that the tarpaulin sheet has to be removed	Third Party	Manager – Parent Seed	
7) Check and record the fumigation process conducted by the service person in the register	Unit Supervisor	Manager – Parent Seed	
8) Receive the bill from third party and verify the same with the register maintained	Unit Supervisor	Manager – Parent Seed	
9) Acknowledge the bill and send to accounts for payment	Manager – Parent Seed	Manager – Parent Seed	
2.A.7.3 Parent seed stock maintenance			

Activity	Maker	Checker	Approver
1) Take germination samples from the existing stock and send to QC	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
2) Check whether the QC result is pass	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
3) In case of failure, re-process the lots <ul style="list-style-type: none"> Gravity separator Hand cleaning Water float 	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
4) Gravity Separator - Gravity Adjustments should be made based on the following <ul style="list-style-type: none"> Feed rate Air control End raise Side Tilt Eccentric speed 	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
5) Feed the grade seeds into gravity adjustment machine	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
6) Open the hopper slide until proper flow rate is achieved	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
7) Adjust the seed flow rate and air volume	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
8) Confirm good seeds is seated on the deck and reject the material floating on the air	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
9) Take germination sample and send it to QC	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
10) Check whether the QC result is pass	Processing Operator/Unit Supervisor	Assistant Manager/ Manager –	

Activity	Maker	Checker	Approver
		Parent Seed	
11) In case of failure, re-process the lots <ul style="list-style-type: none"> Gravity separator (Repeat the same process until germination result is pass) 	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
12) Hand Cleaning - In case of failure in gravity separator process move the seeds to hand cleaning <ul style="list-style-type: none"> Removal of cut seeds, dead seeds and discolored seed 	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
13) Take germination sample and send it to QC after hand cleaning	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
14) Check whether the QC result is pass	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
15) Water Float - In case of failure in hand cleaning then reprocess the seeds using water floating method	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
16) Mix the chemicals with water and put the seeds lot wise into the mixture	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
17) In case of failure, keep the lots separately	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
18) Preserve the stock and re-process as per schedule when it is capable for long period of time	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	
19) In case of not stock-able, get concurrence from QC and submit the details for MD/ Approving authority for disposal	Processing Operator/Unit Supervisor	Assistant Manager/ Manager – Parent Seed	