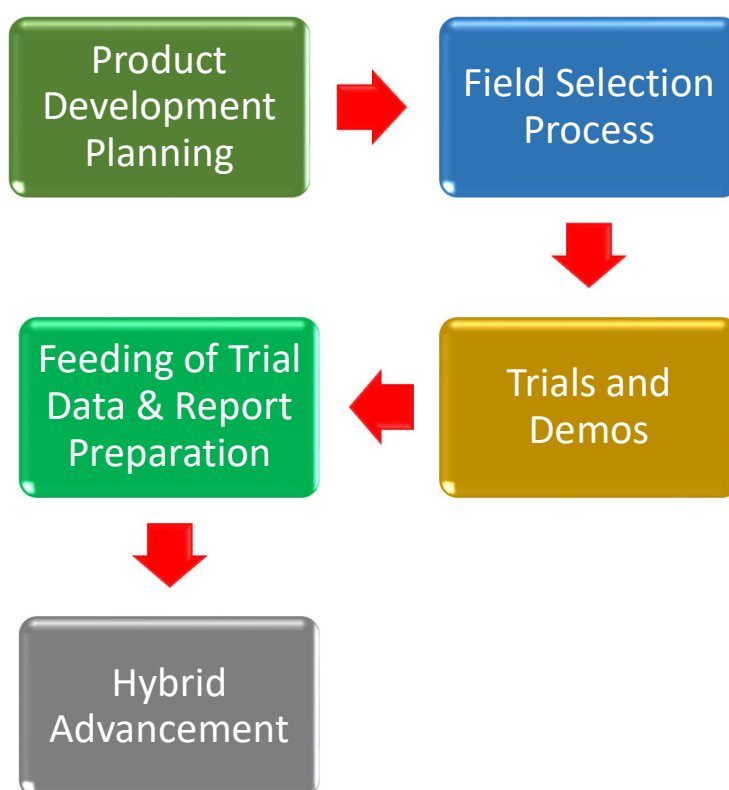


1. SOP – PRODUCT DEVELOPMENT PROCESS SUMMARY

Objective:

- Create product that will fix a problem, address a need, pest resistant and improve in Yield.
- Developing product plan in line with your Company strategy, maximizing revenue, profit and customer satisfaction, delivering new products on time within Budget and achieving product Quality levels.

Process Overview:



Process beginning:

- Product Development Planning.

Process ending:

- Hybrid Advancement Meeting

Key Inputs

Particulars	From	Document Reference
1. Product Development Plan	Breeder	PDD/COM/002
2. Field Visit Report	Sales	PDD/COM/003
3. Soil Test Report	External Official	-
4. PD Seed Indent	Sales	PDD/COM/005
5. Field Layout	Breeder	PDD/COM/006

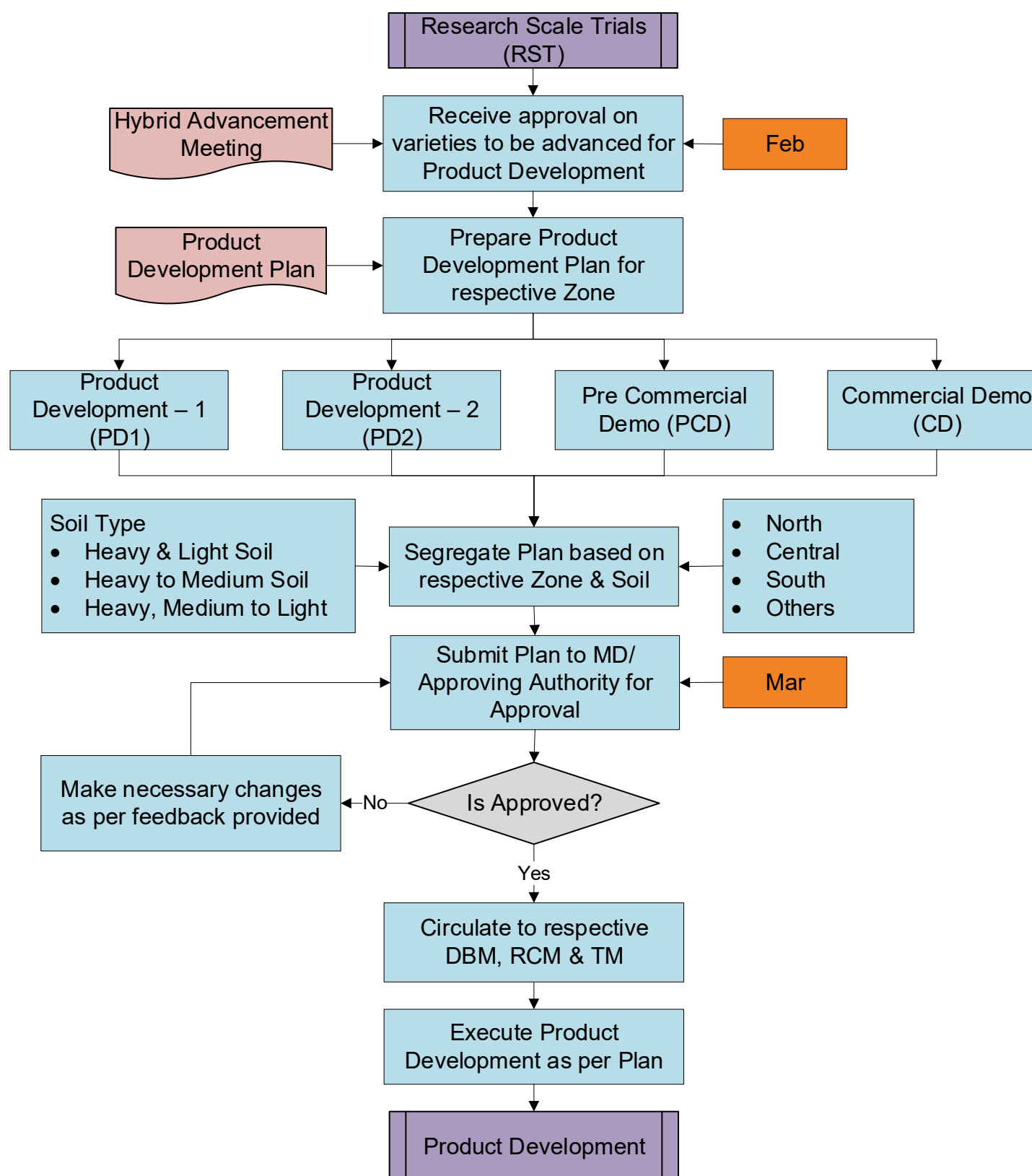
Key Outputs

Particulars	To	Document Reference
1. Farmer Agreement	Farmer	PDD/COM/004
2. PD Tracker Sheet	Management	PDD/COM/007
3. PD Trial Data	IT	PDD/COM/008
4. Crop Tour Feedback	Management	PDD/COM/009
5. Hybrid Advancement Report	Department Heads	PDD/COM/010

Key Documents / Register / Files

S no	Document / Register Name	Document Format	Document Reference
1	Hybrid Advance Report (Previous Year)	Word/PPT	PDD/COM/001
2	Product Development Plan	Excel	PDD/COM/002
3	Soil Test Report	External Document	-
4	Field Visit Report	Pre-Printed Form	PDD/COM/003
5	Farmer Agreement	Pre-Printed Form	PDD/COM/004
6	PD Seed Indent	System Generated	PDD/COM/005
7	Defined Field Layout	Design	PDD/COM/006
8	Product Development Tracker Sheet	Excel	PDD/COM/007
9	PD Trial Data Sheet	Pre-Printed Form	PDD/COM/008
10	Crop Tour Feedback	Excel	PDD/COM/009
11	Hybrid Advancement Report	PPT/Excel	PDD/COM/010

1.1 PRODUCT DEVELOPMENT PLANNING



Sub-process Owner:

National Product Development Manager - NPDM

Departments Involved:

Product Development
R&D
Sales & Marketing
Finance & Accounts

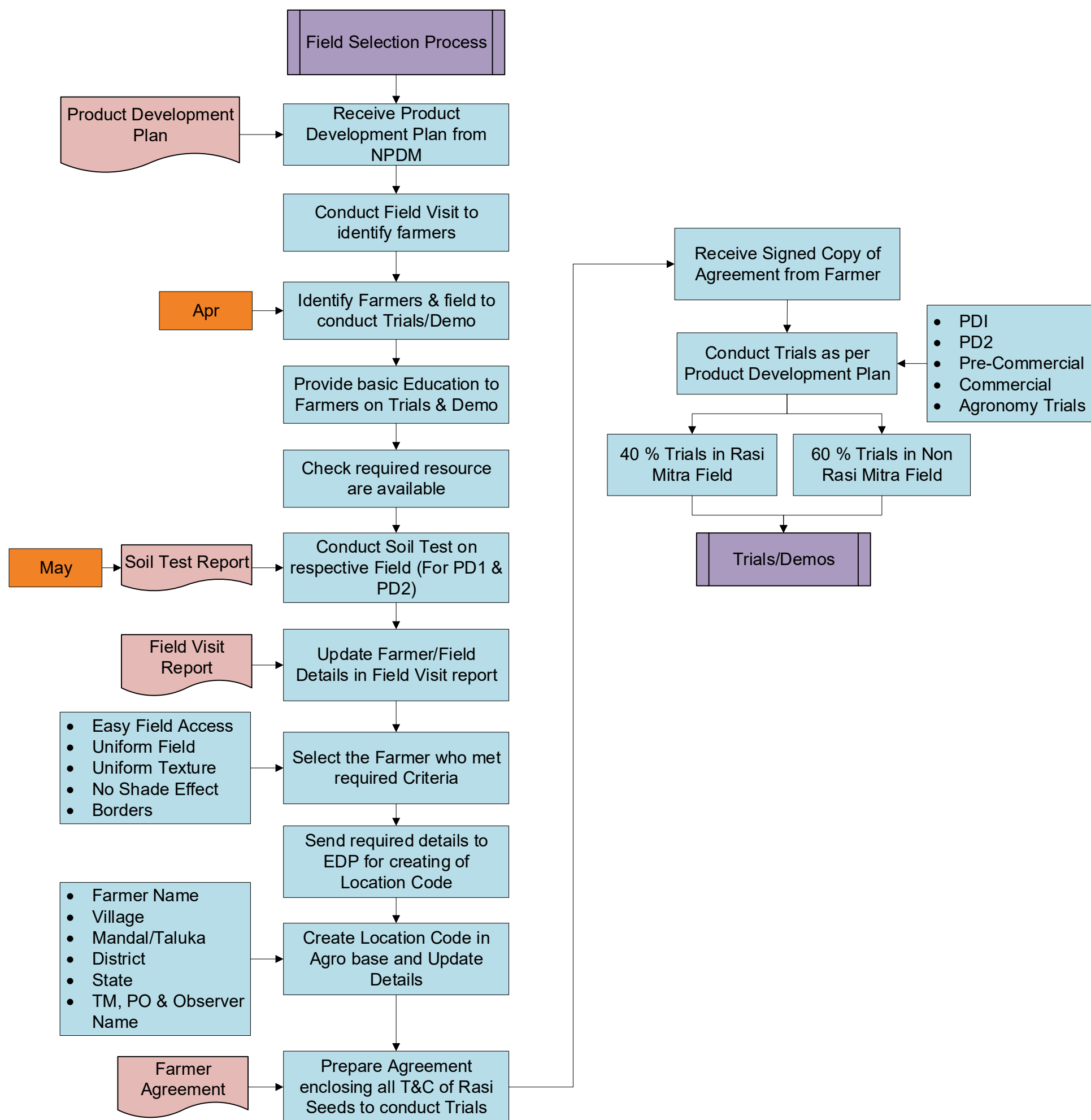
Key activities:

- 1.1.1 Preparation of Product Development Plan
- 1.1.2 Finalizing of PD Plan

Process	Maker	Checker	Approver
1.1.1 Preparation of Product Development Plan			
1) After Hybrid Advancement Meeting, receive approval on varieties to be advanced for Product Development during Feb	NPDM	-	Management
2) Prepare following Product Development Plan for respective Zone <ul style="list-style-type: none"> Product Development – 1 (PD1) Product Development – 2 (PD2) Pre-Commercial Demo (PCD) Commercial Demo (CD) 	NPDM	GM S&M	-
3) Segregate Product Development Plan based on Zone, Soil & Irrigation <u>Zone Wise</u> <ul style="list-style-type: none"> North Division 1 North Division 2 Central Zone South Zone Others <u>Soil Type</u> <ul style="list-style-type: none"> Heavy & Light Soil Heavy to Medium Soil Heavy, Medium to Light <u>Irrigation Type</u> <ul style="list-style-type: none"> Support Irrigated & Closer Spacing Support Irrigated & Rain fed, Support Irrigated, Rainfed & Closer Spacing 	NPDM	GM S&M	-
4) Submit Plan to MD/ Approving Authority for Approval during March	NPDM	GM S&M	MD/

Process	Maker	Checker	Approver
			Approving Authority
1.1.2 Finalizing of PD Plan			
5) On Approval, circulate to respective DBM, RCM & TM. In case on not approved by MD, make necessary changes as per feedback provided.	NPDM	GM S&M	MD/ Approving Authority
6) Execute Product Development as per Plan	NPDM	GM S&M	-

1.2 FARMER & FIELD SELECTION PROCESS



Sub-process Owner:

RBM/DBM

NPDM

Departments Involved:

Product Development

Sales & Marketing

Key activities:

1.2.1 Field Visit

1.2.2 Farmer Selection Process

Activity	Maker	Checker	Approver
1.2.1 Field Visit			
1) Receive Product Development Plan from NPDM	NPDM	GM S&M	-
2) Conduct Field Visit to identify farmers to conduct Trials/Demo	RBM/DBM	NPDM	-
3) Provide basic Education to Farmers on Trials & Demo	RBM/DBM	NPDM	-
4) Ensure required resource are available to conduct Trials & Demo	RBM/DBM	NPDM	-
5) Conduct Soil Test on respective Field – Only for PD1 & PD2.	RBM/DBM	NPDM	-
6) Update Farmer/Field Details in Field Visit report	RBM/DBM	NPDM	-
1.2.2 Farmer Selection Process			
7) Select the Farmer who met following required Criteria <ul style="list-style-type: none"> ➤ Easy Field Access ➤ Uniform Field ➤ Uniform Texture ➤ No Shade Effect ➤ Borders 	RBM/DBM	NPDM	-
8) Send required details to EDP for creating of Location Code in Agro Base <ul style="list-style-type: none"> ➤ Farmer Name ➤ Village ➤ Mandal/Taluka ➤ District ➤ State ➤ TM, PO & Observer Name 	NPDM	IT	-
9) Prepare Agreement enclosing all T&C of Rasi Seeds to conduct Trials and receive signed copy of Agreement from Farmer	RBM/DBM	NPDM	GM S&M
10) Conduct following Trials as per following Product Development Plan <ul style="list-style-type: none"> • 40 % Trials in Rasi Mitra Field • 60 % Trials in Non Rasi Mitra Field 	NPDM	GM S&M	-

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Sub-process Owner:

RBM/DBM
NPDM

Departments Involved:

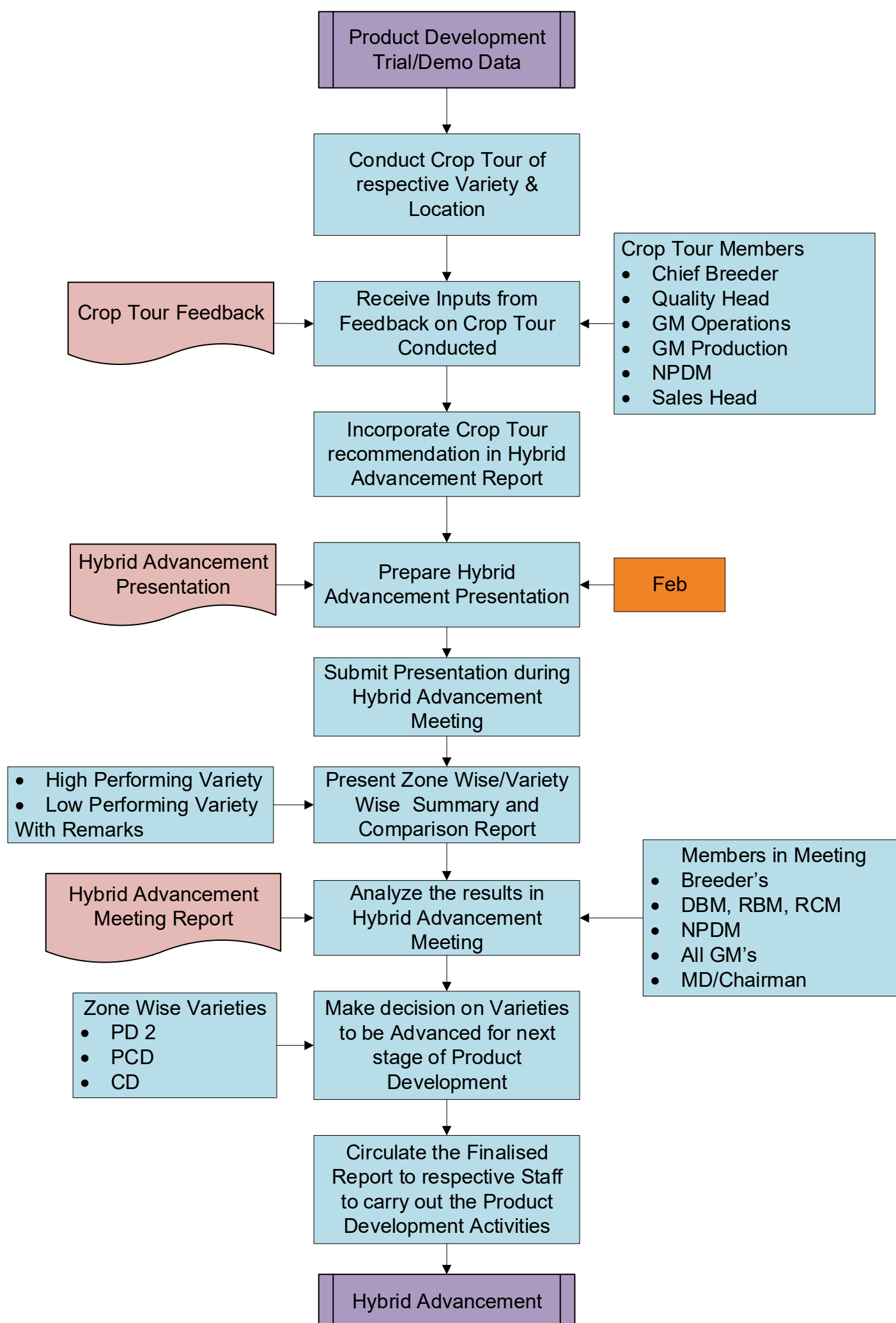
Product Development
Sales & Marketing

Key activities:

- 1.3.1 Receiving of Breeder Seeds
- 1.3.2 Field Execution
- 1.3.3 Capturing of PD Data

Activity	Maker	Checker	Approver
1.3.1 Receiving of Breeder Seeds			
1) Execute Trials/Demos as per Product Development Plan	RBM/DBM	NPDM	-
2) Raise Indent and receive seeds as per Variety & Trial	TM	NPDM	GM S&M
3) Dispatch Seeds to Territory Manager for Sowing in respective region	-	TM	-
1.3.2 Field Execution			
4) Calculate Length & Breadth of respective Field for Trial Planning and ensure the same matches with Defined Field Layout,	-	TM	-
5) Sow the seeds as per respective Trial/Demo and send Farmer & Location details for PD1, PD2, PCD & CD	-	TM	-
1.3.3 Capturing of PD Data			
6) Receive Sowing details and Weekly PD Tracker from respective RBM/RCM	RBM/RCM	NPDM	-
7) Consolidate Sowing details and update Product Development Tracker	RBM/RCM	NPDM	-
8) Submit Weekly PD Tracker to GM & MD on weekly basis	RBM/RCM	NPDM	-
9) TM & PO shall visit the Field on regular interval and collect PD data as required	TM/PO	NPDM	-
10) Update PD Data on respective Days as per Plan <ul style="list-style-type: none"> ➤ Cutoff Date ➤ Picking Date 	RBM/RCM	NPDM	-
11) Consolidate the Data of respective Location from PD trial data sheet	IT	NPDM	-
12) Receive Feedback from Farmer and send Data Sheet with remarks to RCM	RBM/RCM	NPDM	-

1.4 FEEDING OF TRIAL DATA & REPORT PREPARATION



Sub-process Owner:

IT Executive
NPDM

Departments Involved:

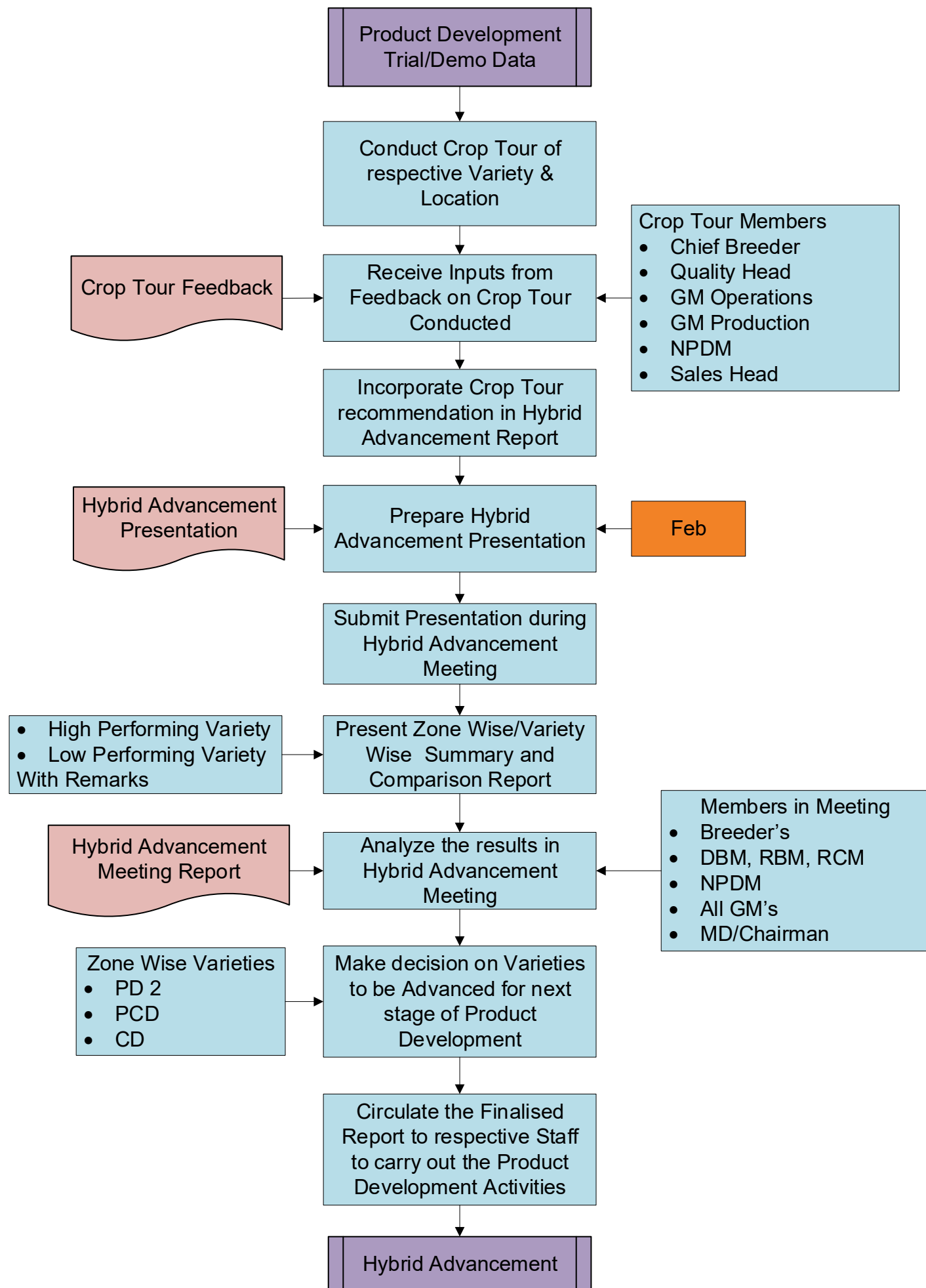
IT
NPDM

Key activities:

- 1.4.1 Consolidation of Trial Data
- 1.4.2 Feeding of Data in to Agrobases
- 1.4.3 Extraction of Report

Activity	Maker	Checker	Approver
1.4.1 Consolidation of Trial Data			
1) Receive consolidated Trial/ Demo Data from respective Locations within 10 days from Last Picking Date	TM	NPDM	-
2) Ensure all Primary Data has been filled in Data Sheet and Check Data received for Single Location or Multi Location	IT	NPDM	-
3) Make necessary corrections in Header of Data Sheet to maintain Uniformity and Upload the same in Agro base Software as per respective Trial.	IT	NPDM	-
1.4.2 Feeding of Data in to Agrobases			
4) Run Agro base Report based on Data uploaded and analyze overall performance of each Variety based on parameters	IT	NPDM	-
5) Compare respective Variety performance with Competitor Hybrid	IT	NPDM	-
1.4.3 Extraction of Report			
6) Extract Performance Report based on following weightage of respective Parameters <ul style="list-style-type: none"> ➤ Easy to Pick ➤ Stay Green ➤ Jassid ➤ Thrips ➤ Boll Weight ➤ Yield etc. 	IT	NPDM	-
7) Summarize variety wise performance and prepare Hybrid Advancement Report	IT	NPDM	-

1.5 HYBRID ADVANCEMENT MEETING



Sub-process Owner:

NPDM

Departments Involved:

Product Development

R&D

Sales & Marketing

Finance & Accounts

Key activities:

1.5.1 Crop Tour

1.5.2 Preparation & Submission of Hybrid Advancement Report

1.5.3 Hybrid Advancement Meeting

Activity	Maker	Checker	Approver
1.5.1 Crop Tour			
1) Organize PD Crop Tour and intimate respective Members to join. ➤ Chief Breeder ➤ Quality Head ➤ GM Operations ➤ GM Production ➤ NPDM ➤ Sales Head	NPDM	GM S&M	-
2) Receive Variety/Location Wise feedback of Crop Tour from respective Member	Respective HOD	NPDM	-
3) Consolidate the feedback received and include as parameter for Hybrid Advancement	NPDM	GM S&M	-
1.5.2 Preparation & Submission of Hybrid Advancement Report			
4) Prepare Hybrid Advancement Presentation and submit during Hybrid Advancement Meeting	NPDM	GM S&M	-
5) Present Zone Wise/Variety Wise Summary Report with Remarks ➤ High Performing Variety ➤ Low Performing Variety	NPDM	GM S&M	-
1.5.3 Hybrid Advancement Meeting			
6) Analyze results in Hybrid Advancement Meeting with respective Members ➤ Breeder's ➤ DBM, RBM, RCM ➤ NPDM ➤ All GM's ➤ MD/Chairman	NPDM	GM S&M	-
7) Make decision on Varieties to be Advanced for next stage of Product Development	NPDM	GM S&M	MD
8) Circulate Finalized Report to respective Staff to carry out the Product Development Activities	NPDM	GM S&M	-

