PONALAB BIOGROWTH PVT LTD

Pepper Crop Management & Disease Protection Schedule (1 Acre)

1. MAJOR DISEASES & PESTS IN BLACK PEPPER

DISEASE/PEST NAME	MAIN SYMPTOMS & FIELD IDENTIFICATION	RECOMMENDED PONALAB PRODUCT & DOSAGE
Quick Wilt / Foot Rot (*Phytophthora capsici*)	Dark water-soaked lesions on leaves, rapid yellowing of vine, rot at collar region, vine wilting within days during heavy monsoon.	• **Trivikram:** 1kg/acre (Root/Vine drenching) • **PMC:** 2 kg/acre (Foliar Wash) • **Chaitanya 24:** 1 kg/acre (Collar drenching)
Slow Decline & Anthracnose (*Fusarium* spp. / *Colletotrichum*)	Gradual foliation loss, yellowing of leaves, leaf margin necrosis (Pollu disease), spike shedding, and root tip decay.	• **Trivikram:** 1kg/acre (Soil drenching) • **Chaitanya 24:** 1kg/acre near standard base
Pollu Flea Beetle, Scale Insect & Nematodes	Yellow crinkled leaves, white scale crusting on stems/spikes, hollow berries, and root knot galls under high moisture.	• **Yuktava:** 3 ml/L • **Trishakthi:** 3 ml/L • **Pona Bossy / Verti:** 3 g/L • **Nemarazer:** 2-3 kg/acre • **Sowmyaa:** 1 L/acre (Drip/Drenching)

2. STAGE-WISE CROP NUTRITION & SPRAY SCHEDULE

CROP STAGE / TIMING	TIMING/ SEASON	PONALAB PRODUCT SOLUTION	APPLICATION RATE & METHOD
Cutting / Runner Treatment	Before Planting	Trivikram + Ponaplus	Dip runner vine cuttings in solution for 15-20 mins prior to planting in polybags or field.
Basin Dosing & Soil Prep	Pre-Monsoon / May-June	NPK Consortia, Trivikram, Jeeva Granules	• **NPK Consortia:** 1-2 kg/acre • **Jeeva Granules:** 10 kg/acre in vine basins
Vegetative Shoot Growth **Spike Emergence & Flowering**	Post-Monsoon Flush June - August	Raheel / Bhumiras 22, PMC, Ponaplus PMC, Pomus17, Powermix	• **Raheel / Bhumiras 22:** 500 ml/acre • **PMC:** 2 kg/acre • **Ponaplus:** 3-5 ml/L • **PMC:** 2 kg/acre • **Pomus17:** 3 ml/L • **Powermix:** 2kg/acre
Berry Development & Ripening	September - December	Powermix, PMC, Pona Potash	• **Pona Potash:** 5 g/L spray per berry expansion wave • **PMC:** 2 kg/acre monthly

3. DRIP & FOLIAR APPLICATION GUIDELINES

VINE BASIN / DRIP DOSING

Raheel 1 Litre / Acre

Interval: Every 20-25 days during vegetative flush & berry formation cycles.

FOLIAR WASH

Every 20 Days

Alternate PMC & Pomus17 to strengthen leaf cuticle against fungal wilt and anthracnose.

PRE-HARVEST DOSE

Pona Potash @ 5g/L

Spray 12-15 days before berry picking to enhance spike weight, boldness & piperine content.

4. KEY BEST PRACTICES FOR HIGH PEPPER YIELD

Cultural & Disease Prevention Practices:

- **Quick Wilt & Root Rot Control:** High soil moisture causes rapid Phytophthora wilt. Apply Trivikram (1-2 kg/acre) via drenching and spray Chaitanya 24 (2 g/L) immediately post-pruning of shade trees or after rain.
- **Cutting Dip Treatment:** Always treat fresh pepper runner stem cuttings with Trivikram and Ponaplus solution prior to planting to prevent collar rot.
- **Basin Soil Health:** Apply Jeeva Granules @ 10 kg/acre mixed with organic manure in vine rings around support trees/standards to boost feeder root health.
- **Spike Retention:** Apply Pomus17 @ 2-3 ml/L along with Boron during spike initiation to reduce spike shedding and increase berry setting rates.
- **Scale Insect & Beetle Control:** Spray Yuktava (2-3 ml/L) or Pona Bossy (2 g/L) around vine joints and spikes to control sap-sucking pests and Pollu flea beetle.
- **Berry Weight & Quality Enhancement:** Spray Pona Potash @ 5 g/L twice during berry expansion stage to enhance berry weight, uniform ripening, density, and shelf life.

> **Safety & Tank-Mix Precaution:**
> Do NOT mix Powermix with high-copper fungicides or harsh chemical pesticides. Always carry out a jar compatibility test prior to tank mixing.

5. CORPORATE CONTACT & SUPPORT DETAILS

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