



**Government of India
Ministry of Agriculture & Farmers Welfare
Department of Agriculture & Farmers Welfare
Directorate of Plant Protection, Quarantine & Storage
Central Insecticide Board & Registration Committee
N.H.-IV, Faridabad-121001 (Haryana)**

**MAJOR USES OF BIO-PESTICIDES
(Registered under the Insecticides Act, 1968)**

(Based on certificate issued)

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(Updated upto 30.09.2025)

BIO-PESTICIDES

1. Major uses of Bio-fungicides (Page No. – 02 to 19)

1. Major uses of Bio-Fungicides

Name ofCrop	Common name of the Disease	Dose/ha		Dilution in water (liter/ha)	Waitingperiod (Days)
		a.i . (g)	Formulatio n (g/ml)/%		
Ampelomyces quisqualis 2.0% WP					
Okra (Bhindi)	Powdery mildew (Erysiphe cichoracearum)	-	2.5 kg	500	-
Cucumber	Powdery mildew	5.0 kg		500	-
Grapes	Powdery mildew	8.0 kg		1000	-
Neem oil based EC containing, Azadirachtin 0.030% (300 ppm)					
Okra	Powdery mildew	-	2-2.50	500	03
Pseudomonas fluorescens 1.75% WP (T Stanes Pf-1 Strain Accession No. MTCC 5671)					
Wheat	Loose smut	-	05 g/kg seed (Seed treatment)	Mix the required quantity of seeds with the required quantity of Pseudomonas fluorescens 1.75% WP formulation and ensure uniform coating. Shade dry and sow the seeds.	Dilution in water (lit/ha) As per requirement for uniform coating of seeds 500 lit per ha
		-	2.5 kg per ha (05 g/litre water) (Foliar spray)	Spray Pseudomonas fluorescens 1.75% WP uniformly on the crop.	500 lit per ha
Tomato	Early blight		05 g/kg seed (Seed treatme nt)	Mix required quantity of the seeds with the required quantity of Pseudomonas fluorescens 1.75% WP. Ensure uniform coating, shadedry and sow the seeds.	As per requirement for uniform coating of seeds

			3 kg per ha (06 g/litre water) (Foliar spray)	Spray <i>Pseudomonas fluorescens</i> 1.75% WP uniformly on the crop.	500 lit perha
<i>Bacillus subtilis</i> 1.50% L.F (T Stanes Bs-1 Strain MTCC 25072)					
Banana	Sigatoka (<i>Mycosphaerella musicola</i>)	-	5 Liter /ha (Foliar spray)	750 Liter/ha	-
Tomato	Early blight (caused by <i>Alternaria solani</i>)	10 ml/kg seed	Seed treatment	-	
		3.0 lit./ha	Foliar spray	500	
<i>Pseudomonas fluorescens</i> 2.0% AS (Strain No. IPL/PS-01, Accession No. MTCC 5727)					
Paddy	Bacterial leaf blight(<i>Xanthomonas oryzae</i> pv. <i>oryzae</i>)	-	10 ml/liter of water	Treatment: Mix 10 ml of <i>Pseudomonas fluorescens</i> 2.0% AS in one litre of water and dip the paddy seedling root for 30 minutes before transplanting followed by foliar application after 40-45 days of transplantation.	NIL
			1.87-2.50 litre/ha	Foliar Spray: Suspend 1.87 to 2.50 litre of <i>Pseudomonas fluorescens</i> 2.0% AS in 500 litre of water and spray uniformly after 40-45 days of transplantation over one hectare land 2-3 spray are	NIL

				required depending upon the disease incident at interval of 10-12 days using a hand operated Knapsack sprayer or power sprayer fitted with a hollow cone nozzle.	
<i>Bacillus subtilis</i> 2.0% AS (Strain No. IPL/BS-09, Accession No. MTCC 5728)					
Paddy	Bacterial leaf blight(<i>Xanthomonas oryzae</i> pv. <i>oryzae</i>)	-	10 ml/litre of water 1.87-2.50 litre/ha	Seedling Root Dip Treatment: mix 10ml of <i>Bacillus subtilis</i> 2.0% AS in one litre of water and dip the paddy seedling root for 30 minutes before transplanting followed by foliar application. Foliar Spray: Suspend 1.87 to 2.50 litre of <i>Bacillus subtilis</i> 2.0% AS in 500 litre of water and spray uniformly after 40-45 days of transplantation over one hectare land 2-3 spray are required depending upon the disease incidence at interval of 10-12 days using a hand operated Knapsack sprayer or power sprayer fitted with a hollow cone nozzle.	NIL NIL
<i>Bacillus subtilis</i> 1.50% AS (MTCC Accession no. 5786)					
Grapes	Powdery mildew (<i>Erysiphe necator</i>)		2 ml/litre water	Bacillus subtilis 1.50% AS is applied as foliar spray and soil spray @ 2 ml/litre of water. The	

				product has to be used with activator provided. Shake the bottle well. Mix the contents of Bacillus subtilis 1.50% AS activator bottles with Bacillus subtilis 1.50% AS in a clean vessel. For 1 Ltr packing add 10 g activator (2 bottles of 5 g each). Mix thoroughly and spray. The product can be applied at 15 days interval. Thorough coverage is essential for optimum result.	
<i>Pseudomonas fluorescens</i> 0.5% WP (TNAU Strain Accession No. ITCC BE 0005)					
Groundnut	Late leaf spot	-	10 g/kg seed	Seed Treatment: Mix the required quantity of seeds with the required quantity of <i>Pseudomonas fluorescens</i> 0.5% WP formulation and ensure uniform coating. Shadedry and sow the seeds	
		-	1 kg/ha	Soil Treatment: 01 kg of <i>Pseudomonas fluorescens</i> 0.5% WP spread uniformly over 1 hectare of land (foliar spray @ 2%).	
Rice	Leaf and neck blast (<i>Pyricularia oryzae</i>)	-	10gm/kg seed	Seed Treatment: Mix required quantity of theseeds with the required quantity of <i>Pseudomonas fluorescens</i> 0.5% WP.	Nil
		-	1 kg/ha	Soil Treatment:	-

				Broadcast 1 kg <i>Pseudomonas fluorescens</i> 0.5% WP by mixing with 2.5 kg organic manure in one ha area.	
		-	1 kg/ha	Foliar spray: Spray 0.5% WP @ 1 kg/ha	-
Chilli seedlings	Damping off (<i>Pythium aphanidermatum</i>)	-	10 g/kg seed	Seed Treatment: Mix required quantity of theseeds with the required quantity of <i>Pseudomonas fluorescens</i> 0.5% WP and ensure uniform coating, shade dry and sow	Nil
Tomato	Wilt (<i>Fusarium oxysporum</i> F.sp.)	-	10 g/kg of seeds	Seed Treatment: Mix required quantity of theseeds with the required quantity of <i>Pseudomonas fluorescens</i> 0.5% WP and ensure uniform coating, shade dry and sow	Nil
			2.5 kg/ha	Soil Treatment: 2.5 kg of <i>Pseudomonas fluorescens</i> 0.5% WP Spread uniformly over a hectare of land	Nil
Cotton	Bacterial Leaf blight	-	10 g/kg of seeds	Seed treatment- Mix required quantity of theseeds with the required quantity of <i>Pseudomonas fluorescens</i> WP and ensure uniform coating with 0.2% Foliar spray, shade	Nil

				dry and sow	
<i>Pseudomonas fluorescens</i> 1.5% WP (BIL-331 Accession No. MTCC5866)					
Paddy	Bacterial Leaf blight (<i>Xanthomonas oryzae</i>), Blast (<i>Pyricularia oryzae</i>), Leaf spot (<i>Helminthosporium oryzae</i>)	-	5 gm/kg of seed	Seed Treatment: Make a thin paste of required quantity of <i>Pseudomonas fluorescens</i> 1.5% WP with min. volume of water and coat the seed uniformly, shade dry the seeds just before sowing.	Nil
		-	2.5 kg /ha	Soil Treatment: Mix 2.5 kg of <i>Pseudomonas fluorescens</i> 1.5% WP with 50 kg FYM or and broadcast uniformly over hectare of land 30 days after planting.	Nil
<i>Pseudomonas fluorescens</i> 1.0% WP (IPL/PS-01 Accession No. MTCC5727)					
Tomato	Wilt (<i>Fusarium oxysporum</i>), Damping Off (<i>Pythium aphanidermatum</i>), Root rot (<i>Rhizoctonia</i> spp.)	-	5 gm/kg of seed	Seed Treatment: Make a thin paste of required quantity of <i>Pseudomonas fluorescens</i> 1.0% WP with the minimum volume of water & coat the seed uniformly, shade dry the seed just before sowing.	Nil
		-	2.5	Soil Treatment:	Nil

			kg/ha	Mix 2.5kg of <i>Pseudomonas fluorescens</i> 1.0% WP with 62.5 kg FYN and broadcast uniformly over a hectare of land.	
		-	10gm/lit res of water	Seedling Root Dip Treatment: Mix 10 gm of <i>Pseudomonas fluorescens</i> 1.0% WP in one litre of water and dip the tomato seedling root rot for minutes.	Nil

***Pseudomonas fluorescens* 1.0% WP (Strain No. IIHR-PF-2 Accession No. ITCCB0034)**

Tomato	Bacterial Wilt (<i>Ralstonia solanacearum</i>)	Treat the seed with <i>Pseudomonas fluorescens</i> 1.0% WP @ 20 gm/kg of seeds & treat the nursery beds with the <i>Pseudomonas fluorescens</i> 1.0% WP @ 50gm/sq.m and apply <i>Pseudomonas fluorescens</i> 1.0% WP @ 5 kg/ha enriched FYM* @ 5 tons/ha to the soil before transplanting.			
Brinjal	Bacterial Wilt (<i>Ralstonia solanacearum</i>)	Treat the seed with <i>Pseudomonas fluorescens</i> 1.0% WP @ 20 gm/kg of seeds & treat the nursery beds with the <i>Pseudomonas fluorescens</i> 1.0% WP @ 50 gm/sq.m and apply <i>Pseudomonas fluorescens</i> 1.0% WP @ 5 kg/ha enriched FYM* @ 5 tons/ha to the soil before transplanting.			
Carrot	Bacterial soft rot (<i>Erwinia carotovora</i>)	Treat the seed with <i>Pseudomonas fluorescens</i> 1.0% WP @ 20gm/kg of seeds and apply <i>Pseudomonas fluorescens</i> 1.0% WP @ 5 kg/ha enriched FYM* @ 5 tons/ha to the soil before sowing.			
Okra	Wilt (<i>Fusarium oxysporum f.sp. vasinfectum</i>)	Treat the seed with <i>Pseudomonas fluorescens</i> 1.0% WP @ 20 gm/kg of seeds and apply <i>Pseudomonas fluorescens</i> 1.0% WP @ 5 kg/ha enriched FYM* @ 5 tons/ha to the soil before sowing.			

***Pseudomonas fluorescens* 1.5% LF (MTCC no. 5671, Strain designation Pf-1)**

Paddy	Leaf/neck blast	4.5ml per kg seed	Seed Treatment: Mix the required quantity of seeds with the required of <i>Pseudomonas fluorescens</i> 1.5% Liquid formulation ensure uniform coating, shade dry and sow.
		6.0 litre per ha	Foliar spray: Spray <i>Pseudomonas fluorescens</i> 1.5% Liquid formulation uniformly on the crop.

***Pseudomonas fluorescens* 1.5% AS CFU 1 x 10⁸/mL min.; AMMFA-TH1 strain; NCMR Accession number MCC 0580**

Tomato	Wilt of tomato (<i>Fusarium oxysporum</i> f.sp. <i>lycopersici</i>)	Seedling dip treatment of AMMA-Pseudo (<i>Pseudomonas fluorescens</i>) 1.5% AS (AMMFA PF-1) at the time of transplanting and Drenching 15 days after transplanting @ 2500 ml/ha			
<i>Trichoderma harzianum</i> 0.50% WS					
Cardamom	Capsule rot (<i>Phytophthora meadii</i>)	-	100 gm/plant	Soil Treatment: Apply 100 gm product/ plant along with Neem cake (0.5 kg/plant) and 5 kg FYM/plant	-
<i>Trichoderma harzianum</i> 1.0% WP (Strain No. IIHR-TH-2 Accessions No. ITCC6888)					
Tomato	Wilt (<i>Fusarium oxysporum</i>)	Treat the seed with <i>Trichoderma harzianum</i> 1.0% WP @ 20 gm/kg of seeds & treat the nursery beds with the <i>Trichoderma harzianum</i> 1.0% WP @ 50 gm/sq.m and apply <i>Trichoderma harzianum</i> 1.0% WP @ 5 kg/ha enriched FYM* @ 5 tons/ha to the soil before transplanting.			
Brinjal	Wilt (<i>Fusarium solani</i>)	Treat the seed with <i>Trichoderma harzianum</i> 1.0% WP @ 20 gm/kg of seeds & treat the nursery beds with the <i>Trichoderma harzianum</i> 1.0% WP @ 50 gm/sq.m and apply <i>Trichoderma harzianum</i> 1.0% WP @ 5 kg/ha enriched FYM* @ 5 tons/ha to the soil before transplanting.			
Carrot	Root rot (<i>Sclerotium rolfsii</i>)	Treat the seed with <i>Trichoderma harzianum</i> 1.0% WP @ 20 gm/kg of seeds and apply <i>Trichoderma harzianum</i> 1.0% WP @ 5 kg/ha enriched FYM* @ 5 tons/ha to the soil before sowing.			
Okra	Wilt (<i>Fusarium oxysporum</i>)	Treat the seed with <i>Trichoderma harzianum</i> 1.0% WP @ 20 gm/kg of seeds and apply <i>Trichoderma harzianum</i> 1.0% WP @ 5 kg/ha enriched FYM* @ 5 tons/ha to the soil before sowing.			
<i>Trichoderma harzianum</i> 1.0% WP (Strain no. Th3 Accession no. 5593)					
Chickpea	Root rot (<i>Rhizoctonia solani</i>)	6 gm/kg of seeds (seed treatment) and soil drenching with <i>Trichoderma harzianum</i> after 50 days of sowing.			
<i>Trichoderma harzianum</i> 1.5% AS (CFU 2 x 10⁶/mL min.; (AMMFA-TH1 strain; NCMR Accession number MCC 0583)					
Tomato	Wilt of tomato (<i>Fusarium oxysporum</i> f.sp. <i>lycopersici</i>)	Seedling dip treatment of AMMAtricho-H (<i>Trichoderma harzianum</i>) 1.5% AS (AMMFA TH-1) at the time of transplanting and Drenching 15 days after transplanting @ 2500 ml/ha			

<i>Trichoderma harzianum</i> 2.0% WP (NBRI-1055)					
Maize	Root rot (<i>Fusarium moniliforme</i>), Fusarium wilt	-	20 gm /kg of seed	Seed Treatment: Make a thin paste of required quantity of <i>Trichoderma harzianum</i> 2.0% WP with minimum volume of water and coat the seeds uniformly, shade dry the seeds just before sowing.	-
<i>Trichoderma reesei</i> 3.0% WP (CSR-T-3 Strain Accession No. NAIMCC-SF-0030)					
Banana	Panama wilt	18 kg/ha	250 ml/plant	600 Liters	7 days
<i>Trichoderma viride</i> 1.0% WP					
Pigeon pea	Wilt, Root rot	-	8 g/kg of seed	Seed Treatment	Nil
		-	5.0 kg/ha	Soil Treatment	Nil
Pulses (Cowpea, Mung bean, Urdbean)	Root rot	-	4 g/kg of seed	Seed Treatment	Nil
Chilli	Damping off	-	4 g/kg of seed	Seed Treatment	Nil
<i>Trichoderma viride</i> 0.5% WP					
Tomato	Wilt (<i>Fusarium oxysporum</i>)	-	10 g/kg seed	Seed Treatment- Mix the required quantity of seeds with the required quantity of <i>Trichoderma viride</i> 0.50% WP and ensure uniform coating, Shade dry and sow.	-
<i>Trichoderma viride</i> 1.50% WP (T Stanes Tv-1 Strain Accession No. MTCC 5170)					
Groundnut	Seedling wilt	-	4 gram/kg seeds	Seed Treatment: Mix required quantity of seeds	

				<p>with the required quantity of <i>Trichoderma viride</i> 1.50% WP and ensure uniform coating, shade dry and sow.</p> <p>Soil Application: Mix 2.5 kg <i>Trichoderma viride</i> 1.50% with 100 kg of properly decomposed farmyard manure and spread uniformly over a hectare of land.</p>	
Wheat	Loose smut	-	4 gram/kg seeds	<p>Seed Treatment: Mix required quantity of seeds with the required quantity of <i>Trichoderma viride</i> 1.50% WP and ensure uniform coating, shade dry and sow.</p>	
Chilli	Root wilt		5.0 gm/kg seed	<p>Seed Treatment: Mix required quantity of seeds with the required quantity of <i>Trichoderma viride</i> 1.50% WP and ensure uniform coating, shade dry and sow.</p> <p>Seedling dip treatment: Dip roots of the seedlings for 20 minutes at the time</p>	

			5.0 gm/lit water	oftransplanting. Soil Application: Mix 3.0 kg <i>Trichoderma viride</i> 1.50% with 100 kg of properly decomposed farmyard manure and spread uniformly over a hectare of land at the time of crop transplanting and at thetime of flowering.	
<i>Trichoderma viride</i> 1.0% WP (TNAU Strain Accession No. ITCC 6914)					
Cowpea	Root Rot	-	5 gm/kg seed	Seed Treatment: Make a fresh slurry of required quantity of <i>Trichoderma viride</i> 1.0% WP with minimum volume of water and coat the seeds uniformly, shadedry the seeds just before sowing.	Nil
			2.5 kg/ha	Soil Treatment: Mix 2.5 kg of <i>Trichoderma viride</i> 1.0% WP with 62.5 kg FYM and	Nil

				broadcast uniformly over a hectare of land and irrigate the field immediately	
Chili seedlings	Damping off (<i>Pythium aphanidermatum</i>)	-	4 g/kg seed	Seed Treatment: Mix required quantity of the seeds with the required quantity of <i>Trichoderma viride</i> 1.0% WP and ensure uniform coating shade dry and sow	Nil
Urd bean	Root rot (<i>Macrophomina phaseolina</i>)	-	4 g/kg seed	Seed Treatment: Mix required quantity of the seeds with the required quantity of <i>Trichoderma viride</i> 1.0% WP and ensure uniform coating shade dry and sow	Nil
Pigeon pea	Root rot (<i>Macrophomina phaseolina</i>)	-	4 g/kg seed	Seed Treatment: Mix required quantity of the seeds with the required quantity of <i>Trichoderma viride</i> 1.0%	Nil

				WP and ensure uniform coating shade dry and sow	
<i>Trichoderma viride</i> 1.0% WP (Strain T-14 in house isolate of M/s Indore Biotech Inputs & Research (P) Ltd., Indore)					
Chickpea	Wilt (<i>Fusarium oxysporum</i>)	-	5 gm/kg seed	Seed Treatment : Make slurry of required quantity of Trichoderma a viride 1.0% WP with minimum volume of water & coat the seeds uniformly, shade dry the seeds just before sowing	
Paddy	Sheath blight (<i>Rhizoctonia solani</i>)	-	5-10 gm/litre of water	Foliar spray: Mix 2.5 kg of Trichoderma viride 1.0% WP in 500 litres of water. Spray three times at 15 days interval uniformly over one hectare land 30 days after planting	
<i>Trichoderma viride</i> 1.5% LF (Strain No. TV-1, Accession No. MTCC 5170)					
Tomato	Root wilt (<i>Fusarium oxysporum</i> f.sp. <i>lycopersici</i>)	-	5ml/kg seed +	Seed treatment + Seedling dip treatment	Dilution in water- 500

			5 ml/ lit wa ter + 3000 ml/ha	+ Soil treatment	liter/ha
Trichoderma viride 1.5% WP (Strain No. IIHR-TV-5, Accession No. ITCC 6889)					
Tomato	Wilt (<i>Fusarium oxysporum</i>)	Treat the seed with <i>Trichoderma viride</i> 1.5% WP @ 20 gm/kg of seeds & treat the nursery beds with the <i>Trichoderma viride</i> 1.5% WP @ 50 gm/sq.m and apply Trichoderma viride 1.5% WP @ 5 kg/ha enriched FYM* @ 5 tons/ha to the soil before transplanting.			
Brinjal	Wilt (<i>Fusarium solani</i>)	Treat the seed with <i>Trichoderma viride</i> 1.5% WP @ 20 gm/kg of seeds & treat the nursery beds with the <i>Trichoderma viride</i> 1.5% WP @ 50 gm/sq.m and apply <i>Trichoderma viride</i> 1.5% WP @ 5 kg/ha enriched FYM* @5tons/ha to the soil before transplanting.			
Carrot	Root rot (<i>Sclerotium rolfsii</i>)	Treat the seed with <i>Trichoderma viride</i> 1.5% WP @ 20 gm/kg of seeds and apply <i>Trichoderma viride</i> 1.5% WP @ 5 kg/ha enriched FYM* @ 5 tons/ha to the soil before sowing.			
Okra	Wilt (<i>Fusarium oxysporum</i>)	Treat the seed with <i>Trichoderma viride</i> 1.5% WP @ 20 gm/kg of seeds and apply <i>Trichoderma viride</i> 1.5% WP @ 5 kg/ha enriched FYM* @ 5 tons/ha to the soil before sowing.			
Trichoderma viride 1.0% WP(IPL/VT/101)					
Cauliflowerr	Stalk rot (<i>Sclerotinia sclerotiorum</i>)	-	4 gm/kg seed	Seed Treatment: Make a thin paste of required quantity of <i>Trichoderma viride</i> 1.0% WP with minimum volume of water and coat the seeds uniformly, shade dry the seeds just before sowing	
		-	2.50 kg/ha	Soil Treatment: Mix 2.5 kg of <i>Trichoderma viride</i> 1.0% WP with	

				62.5 kg FYM and broadcast uniformly over a hectare of land and irrigate the field immediately	
Brinjal	Root Rot/ Wilt/ Damping off (<i>Rhizoctonia bataticola</i> , <i>Sclerotium rolfsii</i> , <i>Fusarium oxysporum</i> , <i>Rhizoctonia solani</i>)	-	5 gm/kg seeds	Seed Treatment: Make a thin paste of required quantity of <i>Trichoderma viride</i> 1.0% WP with minimum volume of water and coat the seeds uniformly, shade dry the seeds just before sowing	
		-	250 gm/50 litre of water/400 sq. m	Nursery Treatment: Mix 250 gm of <i>Trichoderma viride</i> 1.0% WP in 50 litres of water and drench the soil in 400 sq.m area	
		-	10 gm/litre of water	Seedling Root dip Treatment: Mix 10 gm of <i>Trichoderma viride</i> 1.0% WP in one liter of water and dip the Brinjal seedling root for 15 minutes	
		-	2.5 kg/ha	Soil Treatment: Mix 2.5 kg of <i>Trichoderma viride</i> 1.0% WP with 62.5 kg FYM and broadcast	

				uniformly over a hectare of land and irrigate the field immediately	
Cabbage	Root rot/Collar rot (<i>Rhizoctonia solani</i>)	-	10 gm/litre water	Seedling Root dip Treatment: Mix 10 gm of <i>Trichoderma viride</i> 1.0% WP in one litre of water and dip the Cabbage seedling root for 30 minutes	
		-	2.5 kg/ha	Soil Treatment: Mix 2.5 kg of <i>Trichoderma viride</i> 1.0% WP with 62.5 kg FYM and broadcast uniformly over a hectare of land and irrigate the field immediately	
Trichoderma viride 1.0% WP					
Tomato	Seedling wilt (<i>Fusarium oxysporum</i>), Damping off (<i>Pythium aphanidermatum</i> , <i>Rhizoctonia solani</i>)	-	9 g/kg seed	Seed Treatment: Mix 9 kg of the product per kg seed.	-
		-	2.5 kg/ha	Root zone application: Mix thoroughly 2.5 kg of the product in 150 kg of compost or farmyard manure and apply this mixture in the field after sowing/transplanting of crops	-

Bengalgram	Seedling wilt (<i>Fusarium oxysporum</i>), Damping off (<i>Pythium aphanidermatum</i> , <i>Rhizoctonia solani</i>)	-	9 g/kg seed	Seed Treatment: Mix 9 kg of the product per kg seed.	-
		-	2.5 kg/ha	Root zone application: Mix thoroughly 2.5 kg of the product in 150 kg of compost or farmyard manure and apply this mixture in the field after sowing/transplanting crops	-
Trichoderma viride 1.0% WP					
Sunflower	Seed rot (<i>Sclerotium rolfsii</i>), Rootrot (<i>Sclerotium rolfsii</i>)	-	6 g/kg seed	Seed Treatment: Mix required quantity of the seeds with the required quantity of product in rice gruel, ensure uniform coating, shadedry and sow	
		-	1.25-2.5 kg/ha	Soil Treatment: Mix with 30-60 kg of compost/farmyard manure and spread uniformly over 1 hectare of land.	
Trichoderma viride 1.0% WP (TNAU Strain Accession No. ITCC 6914)					
Pigeon pea	Root rot (<i>Macrophomina phaseolina</i>)	-	4 gm/kg seed	Seed Treatment: Mix required quantity of the seeds with the required quantity of <i>Trichoderma viride</i> 1.0% WP and ensure uniform coating, shadedry and sow	-

Urd bean	Root rot (<i>Macrophomina phaseolina</i>)	-	4 gm/kg seed	Seed Treatment: Mix required quantity of the seeds with the required quantity of <i>Trichoderma viride</i> 1.0% WP and ensure uniform coating, shadedry for 24 hours and sow	-
Trichoderma viride 5.0% SC (Strain Accession No. ITCC 7111)					
Chilli (Nursery)	Damping off (<i>Pythium aphanidermatum</i>)	-	2 ml/kg seed	Seed Treatment: Mix required quantity of the seeds with the required quantity of <i>Trichoderma viride</i> 5.0% SC. Ensure uniform coating, shadedry and sow	Nil
Trichoderma harzianum 2.0% AS (Strain No. IPL/VT/102, Accession No. ITCC 6893)					
Paddy	Bakane (Foot rot) (<i>Fusarium moniliforme</i>)	-	30 ml/litre of water	Seedling Root Dip Treatment: Mix 30 ml of <i>Trichoderma harzianum</i> 2.0% AS in one litre of water and dip the paddy seedling root for 30 minutes before transplanting followed by Soil treatment.	Nil
		-	2.5 litre/ha	Soil Treatment: Mix 2.5 litre of <i>Trichoderma harzianum</i> 2.0% AS with 100 kg of properly decomposed FYM and broadcast uniformly over a	Nil

				hectare of land prior to transplanting.	
Trichoderma viride 5.0% Liquid Formulation (Accession no. NAIMCC-F-03034)					
Rice	Brown spot (<i>Cochliobolus miyabeanus</i>)	-	500 liter/ha	Foliar spray	-
Pea	Powdery mildew	-	500 liter/ha	Foliar spray	-
