



Government of India
Ministry of Agriculture & Farmers Welfare
Department of Agriculture, Cooperation & 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)

(As on - 01/01/2021)

(Based on certificate issued)

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BIO-PESTICIDES

1. Major uses of Bio-fungicides (Page No. – 02 to 25)

1. Major uses of Bio-Fungicides					
Name of Crop	Common name of the Disease	Dose/ha		Dilution in water (liter/ha)	Waiting period (Days)
		a.i. (g)	Formulation (g/ml)/%		
<i>Ampelomyces quisqualis</i> 2.0% WP					
Okra (Bhindi)	Powdery mildew (<i>Erysiphe cichoracearum</i>)	-	2.5 kg	500	-
Neem oil based EC containing, Azadirachtin 0.030% (300 ppm)					
Bhindi	Powdery mildew	-	2-2.50	500	03
<i>Pseudomonas fluorescens</i> 1.75% WP (In house isolated Strain Accession No. MTCC 5176)					
Wheat	Loose smut	-	05 g/kg seed (Seed treatment)	Mix the required quantity of seeds with the required quantity of <i>Pseudomonas fluorescens</i> 1.75% WP formulation and ensure uniform coating. Shade dry and sow the seeds.	-
		-	05 g/litre (Foliar spray)	Dissolve 5 kg of <i>Pseudomonas fluorescens</i> 1.75% WP in 1000 litres of water and spray	
<i>Bacillus subtilis</i> 1.50% L.F (T Stanes Bs-1 Strain MTCC 25072)					
Banana	Sigatoka (<i>Mycosphaerellamusicola</i>)	-	5 Liter/ha (Foliar spray)	750 Liter/ha	-

***Pseudomonas fluorescens* 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/litre of water	Seedling Root Dip 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
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		-	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 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
<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	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.	Nil
		-	1.87-2.50 litre/ha	Foliar Spray: Suspend 1.87 to 2.50 litre of <i>Bacillus subtilis</i> 2.0% AS in 500 litre of water and	Ni

				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.	
<i>Bacillus subtilis</i> 1.15% AS (MTCC Accession no. 5786)					
Grapes	Powdery mildew (<i>Erysiphe necator</i>)	-	2 ml/litre water	<i>Bacillus subtilis</i> 1.15% 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 <i>Bacillus subtilis</i> 1.15% AS activator bottles with <i>Bacillus subtilis</i> 1.15% 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. Shade dry 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>)	-	10 gm/kg seed	Seed Treatment: Mix required quantity of the seeds 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	-
Chili seedlings	Damping off (<i>Pythium aphanidermatum</i>)	-	10 g/kg seed	Seed Treatment: Mix required quantity of the seeds 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 gm/kg of seeds	Seed Treatment: Mix required quantity of	Nil

				the seeds with the required quantity of <i>Pseudomonas fluorescens</i> 0.5% WP and ensure uniform coating, shade dry and sow	
			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 seed	Seed treatment- Mix required quantity of the seeds with the required quantity of <i>Pseudomonas fluorescens</i> WP and ensure uniform coating with 0.2% Foliar spray, shade dry and sow	Nil
<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, shades 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	Nil

				30days after planting.	
<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 kg/ha	Soil Treatment: Mix 2.5kg of <i>Pseudomonas fluorescens</i> 1.0% WP with 62.5 kg FYN and broadcast uniformly over a hectare of land.	Nil
		-	10gm/litres 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
<i>Pseudomonas fluorescens</i> 1.0% WP (Strain No. IHR-PF-2 Accession No. ITCCB0034)					
Tomato	Wilt (<i>Fusarium oxysporum</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	Wilt (<i>Fusarium solani</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	Root rot (<i>Athelia rolfsii</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</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.			
<i>Pseudomonas fluorescens</i> 1.5% LF (MTCC no. 5671, Strain designation Pf-1)					
Paddy	Leaf/neck blast	4.5 ml 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.		
<i>Pseudomonas fluorescens</i> 1.5% AS (Strain Accession No. MTCC - 2539)					
Groundnut	Late leaf spot	-	10 ml/kg seed	Seed Treatment: Mix the required quantity of seeds with the required of <i>Pseudomonas fluorescens</i> 1.5% AS and ensure uniform coating. Shade dry and sow the seeds.	Nil
		-	01 litre/ha	Soil Treatment: 1 Litre of <i>Pseudomonas fluorescens</i> 1.5% AS spread uniformly over 1 hectare of land (foliar spray @ 0.2%)	Nil
<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*@5tons/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 @ 50gm/sq.m and apply <i>Trichoderma harzianum</i> 1.0% WP @ 5kg/ha enriched FYM*@5tons/ha to the soil before transplanting.			
Carrot	Root rot (<i>Sclerotium rolfsii</i>)	Treat the seed with <i>Trichoderma harzianum</i> 1.0% WP @ 20gm/kg of seeds and apply <i>Trichoderma harzianum</i> 1.0% WP @ 5kg/ha enriched FYM*@ 5tons/ha to the soil before sowing.			
Okra	Wilt (<i>Fusariumoxysporum</i>)	Treat the seed with <i>Trichoderma harzianum</i> 1.0% WP @ 20gm/kg of seeds and apply <i>Trichoderma harzianum</i> 1.0% WP @ 5kg/ha enriched FYM*@ 5tons/ha to the soil before sowing.			
<i>Trichoderma harzianum</i> 2.0% WP (NBRI-1055)					
Maize	Root rot (<i>Fusarium moniliforme</i>), Fusarium wilt	-	20 gm/kg 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 viride</i> 1.0% WP					
Pigeon pea	Wilt, Root rot	-	8 gm /kg 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> 1.15% WP					
Groundnut	Seedling wilt	-	4 gram/kg seeds	<p>Seed Treatment:Make required quantity of <i>Trichoderma viride</i> 1.15% WP uniform coating, shade dry and sow.</p> <p>Soil Application:Mix 2.5 kg <i>Trichoderma viride</i> 1.15% with 100 kg of properly decomposed farmyard manure and spread uniformly over a hectare of land.</p>	-
Wheat	Loose smut	-	4 gram/kg seeds	Seed Treatment.	-
<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,	Nil

				shade dry the seeds just before sowing.	
		-	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	Nil
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% WP and ensure uniform coating shade dry and sow	Nil
<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 viride 1.0% WP with minimum volume of water & coat the seeds uniformly, shade dry the seeds just before sowing	
	Root Rot (<i>Rhizoctonia solani</i> & <i>Sclerotium rolfsii</i>)	-	5.0 kg/ha	Soil Treatment: Mix 5.0 kg of <i>Trichoderma viride</i> 1.0% WP in 100 kg FYM and broadcast over a hectare land mix well with soil and irrigate the field immediately.	-
Paddy	Sheath blight (<i>Rhizoctonia solani</i>)	-	5-10 gm/litre of water	Foliar spray: Mix 2.5 kg of <i>Trichoderma viride</i> 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% 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 <i>Trichoderma viride</i> 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* @ 5 tons/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)					
Cauliflower	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 litre 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	-
<i>Trichoderma viride</i> 1.0% WP					
Tomato	Seedling wilt (<i>Fusarium oxysporum</i>), Damping off	-	9 g/kg seed	Seed Treatment: Mix 9 kg of the	-

	(<i>Pythium aphanidermatum</i> , <i>Rhizoctonia solani</i>)			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	-
Bengal gram	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>), Root rot (<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, shade dry 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, shade dry 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, shade dry for 24 hours and sow	-
<i>Pseudomonas fluorescens</i> 1.5% AS (Strain Accession No. MTCC - 2539)					
Groundnut	Late leaf spot	-	10 ml/kg seed	Seed Treatment: Mix the required quantity of seeds with the required of <i>Pseudomonas fluorescens</i> 1.5% AS and ensure uniform coating. Shade dry and sow the seeds.	NIL
		-	1 Litre/ ha	Soil Treatment: 1 Litre of <i>Pseudomonas fluorescens</i> 1.5% AS spread uniformly over 1 hectare of land (foliar spray @ 0.2%)	NIL
<i>Bacillus subtilis</i> 1.50% LF (T Stanes BS-1 Strain MTCC 25072)					
Banana	Sigatoka (<i>Mycosphaerella musicola</i>)	-	5 liter/ha (Foliar spray)	750 Liter/ha	-
<i>Trichoderma viride</i> 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, shade dry and sow	Nil
<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	Seedling Root Dip Treatment: Mix 10 ml 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.	Nil
		-	1.87-2.50 litre/ha	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

<i>Trichoderma harzianum</i> 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 hectare of land prior to transplanting.	Nil
<i>Trichoderma viride</i> 1.0% AS (Strain TV-AAV-RJP, Accession no. MCC 1013)					
Urd Bean (Black gram)	Root rot	-	4-6 ml/kg. Seed	Seed Treatment: Mix required quantity of the seeds with the required quantity of <i>Trichoderma viride</i> 1.0% AS and ensure uniform coating, shade dry and sow	-
<i>Trichoderma viride</i> 5.0% Liquid Formulation (Accession no. NAIMCC-F-03034)					
Rice	Brown spot (<i>Cochliobolus miyabeanus</i>)	-	500 liter/ha	Foliar spray	-
Pea	Powdery mildew (<i>Microsphaera alni</i>)	-	500 liter/ha	Foliar spray	-