

## Crop Protection

Sl.No	Problem Identified	Specific farming situation for which technology is developed	Crop/ Animals etc	Breed/Variety	Specific Technology	Yield
1	Blister beetle attack in lady's finger	Rainfed upland ecosystem	None	<i>Abelmoschus esculantus</i> (lady's finger)	The infestation of the blister beetle is at its peak in July and therefore when the crop is sown in March-April, it escapes the severe attack of the pest. Malathion dust application reduces the infestation by more than 80%	Beetle infestation reduced by 80%
2	Cut worm damage	-----	Maize	Drenching of soil with Chloropyriphos 0.05% or dusting of BHC 5% @20kg/ha at the seedling stage	-----	-----
3	Stem borer damage	-----	Maize	-----	Spraying of Monocrotophos(0.05%) ten days after sowing followed by application of Carbofuran 3G @1kg a.i/ha in 20 days old plants	-----
4	Damage due to semilooper, armyworm and leaf eating caterpillar	-----	Maize	-----	Spraying of 0.03-0.05% Quinalphos or Endosulphon(450 litres/ha)	-----
5	Infestation of stem borer and other sucking pests	-----	Rice	-----	Seedling root dip treatment in Chlorpyriphos 0.2% and urea 1% for three hours prior to transplanting	-----

6	Infestation of stem borer	-----	Rice	-----	Application of Carbofuran 3G@ 1kg a.i/ha when 5% dead heart or 1 egg mass per sq.m is observed in the field.	-----
7	Leaf folder	-----	Rice	-----	Spraying of 0.03-0.05% Quinalphos at 15 days interval when 1 damaged leaf per hill is observed in the field	-----
8	Pod borer damage	-----	Cowpea	-----	Spraying of Endosulphon (0.05%) or Decamethrin(0.01%) before flowering and early pod formation stage. At active fruiting stage spraying of Cythion @0.05% is effective	-----
9	Aphid infestation	-----	Cowpea	-----	Spraying of Cythion(0.05%) or any synthetic pyrethroid e.g Decamethrin, Cypermethrin, Fenvalerate @0.01% during vegetative stage	-----
10	Blister beetle infestation	-----	Cowpea	-----	Handpicking and destruction of blister beetle in the early morning Decamethrin, Cypermethrin, Fenvalerate@ 0.01% during evening hours can be sprayed	-----
11	Cut worm damage	-----	Cole crops	-----	Spraying of <a href="#">Chlorpyrifos@0.05%</a> in the field before transplanting of the crops	-----
12	Slug damage	-----	Cole crops	-----	Spraying of DDVP@ 0.02% or Endosulphon @0.04%	-----
13	Fruit borer damage	-----	Tomato	-----	Spraying of <a href="#">decamethrin@0.01%</a> or methylparathion @0.03% during early fruit formation stage	-----
14	Low yield of brinjal due to	Irrigated and rainfed	Brinjal	HYV	Pheromone trap (20 numbers/acre)	220-300

	fruit and shoot borer					
15	Low yield and quality	Irrigated and rainfed	Brinjal	HYV	IPM Technology	220 to 300
16	Contamination of paddy straw.	Mid altitude.	Mushroom	<i>Pleurotus spp.</i>	Hot water treatment (80°C for 20min.) and chemical sterilization technique (Formalin 500 ppm + Carbendazim 75 ppm soaking 18 hrs.) were found equally effective for pre-treatment of paddy straw.	None
17	Early Leaf Spot disease	Mid altitude	Groundnut	JL-24	Single spray of Dithane M-45 @ 2.6g + Bavistin 1 g/lit. at 40-55 days old crop control ELS disease economically.	None
18	Rice Blast	Mid altitude	Rice	HR-12	Tricyclazole(0.06%) and Propiconazole(0.1%) based fungicides were found to be effective in managing rice blast.	None
19	Tenacity of fungicides	Mid altitude	Rice	HR-12	Use of Indtron ( Sticker spreader) with Carbendazime(0.1%)	None
20	Soybean Rust	Mid altitude	Soybean	JS-335	Tridemifon (0.1%) based fungicides were found to be effective in managing soybean rust.	None
21	Low yield and susceptibility to leaf blight and leaf spot	Hilly areas	Turmeric	Megha Turmeric-1	High yielding variety having resistance against leaf blight and leaf spot disease	27-30t/ha with high curcumin (6.8%)
22	Citrus decline	Citrus orchard	Citrus	None	Developed rejuvenation schedule for declined orchards	None
23	Brinjal shoot and	Vegetable	Brinjal	-----	Regular clipping and burning of withered	More than

	fruit borer damage				dead shoots, leaves and plant residues. Use of lucilure sex pheromone @100 traps/ha at 20 – 25 DAT and replacing the lure at monthly interval.	70% control of EFSB
24	Rice gundhi bug damage	Rice farming situation	Rice	-----	Improvised ITK (crab trap) for the control of rice gundhi bug which is commonly used by the farmers in Meghalaya. During milking stage, use rotten crab in a plastic funnel trap @100 traps/ha which attracts and controls gundhi bug effectively.	60% control of gundhi bug.
25	Rodent damage	All agro - ecosystems	Rice, maize, groundnut, pineapple, sweet potato etc.	-----	Developed calendar of operation for rodent management in different land situations	Facilitate in rodent management