

Annexure III Pests and diseases of Crops

District: Una									
1	2	3	4	5	6	7	8	9	10
Host	Insect/ animal	Scientific name	Local name	Habitat	Time/ season of attack	Management mechanism	Associated TK	Other details	Community knowledge holder
Maize	Maize Stem Borer	<i>Chilo partellus</i>	Tane ki sundi	<ul style="list-style-type: none"> larvae first feed on the leaves, making a few shot holes. Central shoot withers and leading to dead heart. 	July	<ul style="list-style-type: none"> Remove the dead-hearts and infested plants. Apply 2 g phorate (Thimmet 10G) per meter of row length. 	-	-	-
	Corn leaf aphid	<i>Rhopalosiphum maidis</i>	Tela	<ul style="list-style-type: none"> Aphids infest leaves, leaf sheaths and inflorescences. Most severe damage occurs to the tassel. 	September	<ul style="list-style-type: none"> Foliar spray of imidacloprid 200SL or thiamethoxam 25 WDG @ 0.005%. 	-	-	-
	Blister beetle	<i>Mylabris spp.</i>	Ghodi	<ul style="list-style-type: none"> Feed on tessels 	September	<ul style="list-style-type: none"> Collect and destroy beetle Spray 625 ml methyl parathion 50 EC in 625 L water/ha at the tasselling stage, if required. 	-	-	-
Paddy	Leaf folder	<i>Cnaphalocrocis medinalis</i>		Caterpillars infest leaves of young plants by fastening the edges of the leaf together and live inside rolled leaf. Occasionally cause serious damage at vegetative stage	Occasional / at vegetative stage	<ul style="list-style-type: none"> Clip-off the affected leaves. Remove weeds especially graminaceous ones Spray 1250 ml chloropyriphos 20 EC (per 500 L water/ha on pest appearance. 	Clip-off the affected leaves		Local people
	Stem borer	<i>Scirpophaga</i>		Damage is caused by	Occasional	<ul style="list-style-type: none"> Apply carbofuran 			Local

		<i>innotata</i>		feeding of the larvae within the stem. The damaged plants result in 'dead heart' and 'white head' formation	at vegetative stage	(Furadan 3 G) by broadcasting in 3-4 cm deep standing water @ 1 kg/ha (a.i.) 10 days after transplanting, if necessary. <ul style="list-style-type: none"> • Spray 500 ml methyl parathion (Metacid 50 EC) in 500 L water/ha. Repeat after 45 days. 			people
Wheat	Termite	<i>Odontotermis obesus, Microtermis obesi</i>	Deemak	Infest crop at germination stage. Cause yellowing and patchy growth of wheat visible from seedlings to maturity	Regular	<ul style="list-style-type: none"> • Remove stubbles of previous crop before sowing. • Termite mound should be destroyed in vicinity of crop • Seed treatment with chlorpyrifos 20 EC (4ml/kg seed) • Soil application of 2lt.chlorpyrifos 20 EC mixed in 25 kg sand per ha at the time of sowing 			
	Aphid	<i>Sitobion</i> spp.	Tela	Suck sap from soft leaves, stem and developing grains from December till crop maturity and ultimately inhibiting grain formation	Regular	<ul style="list-style-type: none"> • Follow common cultural, mechanical and biological practices • Spray 750 ml methyl demeton 25 EC or dimethoate 30EC in 750 l water/ ha • Generally, natural 	Dusting of wood ash		Local people

						enemies present in the field help in controlling the population of this pest			
Gram (Chickpea)	Gram pod borer	<i>Helicoverpa armigera</i>	Falli ki sundi	<ul style="list-style-type: none"> The larvae feed on leaves and bore into pods. 	March	<ul style="list-style-type: none"> early sown crop escapes the infestations intercrop with wheat, mustard and linseed Apply HaNPV @ 250LE/ ha Spray the crop with lambda-cyhalothrin 5% EC @ 400-500ml/ 400-600 L/ ha 	-	-	-
	Black cutworm	<i>Agrotis ipsilon</i>	Katua Keet/ Toka	<ul style="list-style-type: none"> Found during day time hiding in soil close to stems. Larva cut the seedling plants and feed. 	April-June & Oct-Nov	<ul style="list-style-type: none"> Hand picking and destruction of larvae. Apply chlorpyrifos 20 EC @ 2 litres/ ha 	-	-	-
Mash	Blister beetle	<i>Mylabris pustulata</i>	Ghodi	Adults feed voraciously on flowers	August-September	<ul style="list-style-type: none"> Collect and destroy beetle Spray 625 ml methyl parathion 50 EC in 625 L water/ha. 	Collect and destroy beetles		Local people
	Black bean bug	<i>Chauliops spp.</i>	-	Leaf sap feeder	May-September	-	-	-	-
	Whitefly	<i>Bemisia tabaci</i>	Chiti makhi	Leaf sap feeder	May-September	-	-	-	-
Rapeseed-musta	Cabbage aphid	<i>Brevicoryne brassicae</i>	Tela			<ul style="list-style-type: none"> Spray methyl demeton 25EC or 			

rd						dimethoate 30EC @1ml/l. <ul style="list-style-type: none"> If crop is meant for 'Sag' purpose, then spray malathion 50EC @ 1ml/l and observe 1 week waiting period 			
	Mustard aphid	<i>Lipaphis erysimi</i>	<i>Tela</i>		-do-	<ul style="list-style-type: none"> -do- 			
	Green peach aphid	<i>Myzus persicae</i>	<i>Tela</i>		-do-	<ul style="list-style-type: none"> -do- 			
	Mustard saw fly	<i>Athalia lugens proxima</i>	-		-do-	<ul style="list-style-type: none"> Spray malathion 50EC @ 1ml/l 			
	Cabbage butterfly	<i>Pieris brasscae</i>	-		-do-	<ul style="list-style-type: none"> -do- 			
	Pea leaf miner	<i>Chromatomyia horticola</i>	-		-do-	<ul style="list-style-type: none"> Spray methyl demeton 25EC or dimethoate 30EC @1ml/l. in crop meant for seed 			
	Painted bug	<i>Bagrada hiliaris</i>	-		-do-	<ul style="list-style-type: none"> -do- 			
	Flea beetle	<i>Phyllotreta cruciferae</i>	-		-do-	<ul style="list-style-type: none"> -do- 			
Til	Hairy caterpillar	<i>Spilosoma obliqua</i>		<ul style="list-style-type: none"> Feed on leaves and growing shoots 	Vegetative stage	<ul style="list-style-type: none"> Collect and destroy the gregarious caterpillars Spraying cypermethrin @ 0.01% when the caterpillars are small in size (less than 2mm) 	-	-	-
	Leaf roller	<i>Antigastra catalaunalis</i>		<ul style="list-style-type: none"> Young larvae roll the leaves and feed inside 	-do-	<ul style="list-style-type: none"> Spray quinalphos @0.05% 	-	-	-
Potato	Greasy cutworm	<i>Agrotis ipsilon</i>	Katua Keet/ Toka	<ul style="list-style-type: none"> Found during day time hiding in soil close to stems 	April-June & Oct-Nov	<ul style="list-style-type: none"> Forking the soil exposes the larvae to avian predators 			

				<ul style="list-style-type: none"> • Newly hatched larvae first feed on haulms and then drop from plants and feed underground on stems and tubers 		<ul style="list-style-type: none"> • Apply chlorpyrifos 20 EC @ 2 liters/ ha after mixing with 20-25 kg of sand 			
	Tobacco caterpillar	<i>Spodoptera litura</i>	Kali Sundi	<ul style="list-style-type: none"> • The caterpillars hide during day in crevices and feed at night. • Defoliation of foliage 	June-Oct	<ul style="list-style-type: none"> • Collect and destroy eggs and larvae mechanically • Ploughing to expose and kill pupae in the soil • Flood irrigation may drown the hibernating caterpillars and pupae • Spray Cypermethrin 25 EC or Lambda cyhalothrin 5 EC @ 600 ml/ 750L of water 			