

Annexure III Pests and diseases of Crops

District: Shimla									
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	Black cutworm	<i>Agrotis ipsilon</i> <i>A. segetum</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. 	-	-	-
	White grubs	<i>Brahmina coriacea</i>	Safed Gidar	<ul style="list-style-type: none"> • Soil dwelling grubs are present in soil at a depth of 5-20 cm. • Grubs feed on underground stem and roots tubers. 	June-Oct	<ul style="list-style-type: none"> • Plough the fields to expose grubs to predators. • chlorpyrifos 20 EC @ 2 litres/ ha after mixing with 20-25 kg of sand. 	-	-	-
	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%. 	-	-	-
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 chlorpyrifos 20 EC (per 500 L water/ha on pest appearance. 	Clip-off the affected leaves		Local people
Wheat	Aphid	<i>Rhopalosiphum maidis</i> , <i>Sitobion avenae</i>	Tela	Suck sap from soft leaves, stem and developing grains	Regular	<ul style="list-style-type: none"> • Follow common cultural, mechanical and 	Dusting of wood ash		Local people

				from December till crop maturity and ultimately inhibiting grain formation		<p>biological practices</p> <ul style="list-style-type: none"> • Spray 750 ml methyl demeton 25 EC or dimethoate 30EC in 750 l water/ ha • Generally, natural enemies present in the field help in controlling the population of this pest 			
Potato	Cutworm	<i>Agrotis ipsilon</i> <i>A. segetum</i>	Katua Keet/ Toka	<ul style="list-style-type: none"> • Found during day time hiding in soil close to stems • Newly hatched larvae first feed on haulms and then drop from plants and feed underground on stems and tubers 	April-June & Oct-Nov	<ul style="list-style-type: none"> • Forking the soil exposes the larvae to avian predators • Apply chlorpyrifos 20 EC @ 2 liters/ ha after mixing with 20-25 kg of sand 			
	White grubs	<i>Brahmina coriacea</i> <i>Holotrichia longipennis</i> <i>Anomala dimidiata</i> <i>Melolontha</i> spp	Safed Gidar	<ul style="list-style-type: none"> • Soil dwelling grubs are present in soil at a depth of 5-20 cm • Grubs make large, shallow, and circular holes in tubers 	June-Oct	<ul style="list-style-type: none"> • Ploughing to expose grubs, pupa and newly formed adults to birds • Beetle collection at night and killing in water mixed with kerosene • Chlorpyrifos 20 EC @ 2 litres/ ha after mixing with 20-25 kg of sand • Insecticide application should occur soon after adult emergence, and should 			

						coincide with egg laying or egg hatching			
	Green Peach aphid	<i>Myzus persicae</i> (Sulzer)	Tela	<ul style="list-style-type: none"> • Aphids can injure a potato plant directly by sap feeding and indirectly by transmitting several important potato viruses 	Regular	<ul style="list-style-type: none"> • Seed plots must be kept free of aphids • Selection and rouging of plants infected with a virus • Foliar sprays of dimethoate @ 1ml/L of water/ha • Imidacloprid and thiamethoxam also provide effective protection 			
	Wire worms	<i>Drasterius</i> sp.		<ul style="list-style-type: none"> • Major damage occurs from time of tuber initiation until harvest • Bore into the tubers and make cylindrical holes 	June-Oct	<ul style="list-style-type: none"> • Rotation with lgume crops • Keep fields weed-free • Insecticides incorporated into ridges immediately before planting can reduce tuber damage • Phorate applied in furrows is approved for the control of wireworms in potatoes 			
	Potato cyst nematode	<i>Globodera rostochiensis</i>	Sunehri Sutarkrimi	<ul style="list-style-type: none"> • Infect roots 	April - October	-	-	-	-