## **COMMON TRADITIONAL PEST MANAGEMENT PRACTICES OF NORTH EAST INDIA**

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SN	ITK practices	Target pests	Reference
1	Erection of bamboo (Bambusa indica)	Rice stem borer	Deka et al., 2006
	branches or other stick in the rice field.		
2	Steam decoction of neem (Azadirachta	Rice stem borer	Deka et al., 2006
	indica A. Juss.) seeds and leaves, and		
	spraying of extract onto to the rice crop.		
	The extract is prepared by mixing 1 to 3 gm		
	of ground neem seed or leaf in 1L of water		
	(0.1-0.3% concentration) for 12 hrs		
	(Bhogayati, 2001).		
3	Keeping slices of pumalo (Citrus grandis	Rice stem borer	Deka et al., 2006
	Osbeck) in the paddy field $@1 \text{ trap/6 m}^2$ .		
4	The grounded pulp of the Khira leaf	Rice stem borer	Sharma <i>et al.</i> , 2009
	introduction in irrigation channel		
5	Placing chopped leaves of Indian	Rice stem borer	Deka et al., 2006
	Rhododendron or Phutuka (Melastoma		
	malabathricum Linn.) in paddy field		
6	Placing of grounded bark of drumstick	Rice stem borer	Deka et al., 2006
	(Moringa oleifera Lam.) in to the rice field.		
7	Placing few branches of fern	Rice stem borer	Deka et al., 2006
	(Cybotium spp.).		
8	Burying the puthi or barb fish (Puntius spp.)	Rice stem borer	Deka et al., 2006
	in to the soil for 15-20 days and spraying		
	water extract of them in to the rice field		
9	Placing citrus or Sakala tenga (Citrus	Rice stem borer	Deka et al., 2006

	sinensis Osbeck) peels in the rice field		
10	Erecting or pegging branches of	Rice stem borer	Chhetry, 2008
	Cymbopogon khasianum or Saccharum		
	spantaneum		
11	Spreading of grounded pulp of <i>Khira</i> leaves	Rice stem borer	Sharma et al., 2009
	in water		
12	Placing of branches of Calotropis procera	Rice stem borer and	Shrivastava <i>et al.</i> ,
	in paddy fields.	root borers	2009
13	Removal of grasses around the bund of	Rice leaf folder	Sharma et al., 2009
	paddy field		
14	Placing of well fermented wine pomace	Rice leaf folder	Chhetry, 2008
	(wine residue) usually made up of millets in		
	the source of irrigation canal of rice fields		
15	Spraying of aqueous suspension of cow	Rice thrips	Chhetry, 2008
	dung in the nursery		
16	Dragging of rope impregnated with	Rice Case worm	Chhetry, 2008
	kerosene in standing water		
17	Rearing duck near the paddy field	Rice hispa	Chhetry, 2008
17 18	Rearing duck near the paddy field Mixing cow dung with water in paddy field.	Rice hispa Rice hispa	Chhetry, 2008 Chhetry, 2008
17 18 19	Rearing duck near the paddy field Mixing cow dung with water in paddy field. Placing of Nishinda plant twigs	Rice hispa Rice hispa Rice hispa	Chhetry, 2008 Chhetry, 2008 Bhattacharjee and
17 18 19	Rearing duck near the paddy fieldMixing cow dung with water in paddy field.Placing of Nishinda plant twigs(Vitex negundo L.) in the infected rice	Rice hispa Rice hispa Rice hispa	Chhetry, 2008 Chhetry, 2008 Bhattacharjee and Ray, 2010
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	paddy fields.		2009
	Placing of long branches along with leaves		
	at a distance of 14.6 m in paddy fields;		
	around 25-30 branches are required for 0.24		
	ha.		
26	Placing grounded oak tree bark in the	Brown plant hopper	Chhetry, 2008
	source of irrigation canal		
27	Burying leaves of Calotropis procera in the	Brown plant hopper	Shrivastava et al.,
	soil deep in nursery as well as in rice field.		2009
28	Spreading leaves of Artemisia	Several pests of rice	Chhetry, 2008
	vulgaris, Croton caudatus, Munromia		
	wallichi, Adhatoda vessica etc.		
29	Intercropping of maize in jhum rice	Several pests of rice	Chhetry, 2008
30	Keeping tree boles/trunk and partially cut	Rice Grasshopper	Chhetry, 2008
	alder trees amidst jhum field		
31	Growing of intercrops such as maize and	Several pests of rice	Chhetry, 2008
	sorghum long duration pigeon pea etc. with		
	jhum rice.		
32	Conservation of sacred grooves	Several pests of rice	Chhetry, 2008
33	Indigenous repeated ploughing technique	Several pests of rice	Chhetry, 2008
	for getting rid of soil borne insects and their		
	diapausing stages which damage paddy		
	crops is very effective in wet land system		
	and dry sedentary farming system		
	(Manipur)		
34	Keeping nitrogen fixing legume viz.,	Several pests of rice	Chhetry, 2008
	nepalese alder, Alnus nepales in jhum rice		
	field		
35	Lightning earthen ware lamps	Several pests of rice	Barooah and Pathak,
			2009
36	'Chang-Ghar' of Lisus Tribe of Arunachal	Pest and fungal attack	Sarma et al., 2006
	Pradesh:	in hanging maize	
	House built on platform of bamboo or	cobs	

	wooden planks with a kitchen in a centre		
37	Spreading of grounded pulp of the Khira	Maize stem borer,	Sharma <i>et al.</i> , 2009
	leaf in the wheat field	Chillo zonellis	
38	Dipping of sugarcane setts in Calotropis	Wheat and maize	Shrivastava et al.,
	procera leaf extract @ 15% and 20%	Termite	2009
39	Pouring Calotropis procera leaf extract	Wheat and maize	Shrivastava et al.,
	solution in termite-infested soil	Termite	2009
40	Spreading Calotropis procera leaves in the	Wheat and maize	Shrivastava et al.,
	standing crop. Collect and destroy the	Army worm	2009
	insects gathered on the broadcasted leaves		
	and simultaneously replace with the fresh		
	leaves		
41	Spraying of the latex of <i>Calotropis</i>	Cotton Bollworm and	Shrivastava <i>et al.</i> ,
	gigantea roots, branches and leaves diluted	other defoliators	2009
	in 15 parts of water		
	L		
12	Spreading of Calatronic giganta twigs on	Groundnut Red hairy	Shrivesteve <i>et al</i>
72	field hour derice		2000
		caterpillar	2009
43	Spreading of <i>Calotropis</i> twigs in the field	Castor and sesamum	Shrivastava <i>et al.</i> ,
		Red hairy caterpillar	2009
44	Application of <i>Calotropis</i> leaf powder @	Mustard Saw fly	Shrivastava et al.,
	50 kg/ha in mustard.		2009
45	Soil application of Calotropis leaf powder	Pigeon pea Root knot	Shrivastava et al.,
	@ 100 kg/ha	nematode	2009
46	Keeping Heigri (Dillenia indica L.)	Stored grains Rice	Bhattacharjee and
47	leaves over the stored rice	weevil	Ray, 2010
4/	over the stored rice	Stored grains Rice	Bhattacharjee and Ray 2010
48	Placing of Tezpata, (Cinnamomum tamala	Stored grains Rice	Bhattacharjee and
	Nees & Eber m.) leaves on storage grains	weevil	Ray, 2010
49	Keeping of Chawai sabi ( <i>Polygonum</i> hydroningr Linn) leaves over the stored	Stored grains Rice	Bhattacharjee and Ray 2010
	rice	moui	1.uy, 2010
50	Artemisia vulgaris L. (Maharna). Put fresh	Stored grains Many	Sinha, 2010
	or dried branches/leaves in and around granaries	pests	
51	Azadirachta indica (Neem), Cympopogan	Stored grains Many	Sinha, 2010

	khasianus (Shipuh harvashe) and Cannabis	pests	
	sativa: Crush and put fresh or dried	1	
	branches/leaves in and around granaries		
52	<i>Elshotzia blanda</i> (kholo) or <i>Melia</i>	Stored grains Many	Sinha, 2010
	composita (Thoso): crush and put fresh and	pests	
	dried leaves in and around granaries		
53	Rub pulses with pork oil before storage	Stored grains Many	Sinha, 2010
		pests	
54	Kitchen storage: Pulse, maize, onion etc.	Stored grains Many	Sinha, 2010
	are kept in the kitchen around 2-3 m	pests	
	above the ground at an angle of 450 from		
	the chullah (cooking place)		
55	Indigenous granary : Harvested grains are	Stored grains Many	Sinha, 2010
	stored in special granaries, constructed	pests	
	outside the house for proper aeration and		
	tin sheets or noted wooden plates are		
	provided as rat parmers in the pillars		
56	Gilmat (Dendrocnida sinnuata): Place	Stored grains	Sinha 2004 and
50	fresh leaves in between two layers of boiled	Rodents	2010
	rice After 24 hrs put treated rice in	Rodents	2010
	possible rat runways		
.57	<i>Entada pursaetha</i> (kah and sui) <sup>•</sup> mix equal	Stored grains	Sinha 2004 and
	proportion with groundnut seed kernel and	Rodents	2010
	ground rice and put in possible rat runways		
58	Plugging of burrows by paddy husk and	Stored grains	Chhetry, 2009
	local chilly land races	Rodents	
59	'Rat Proof Granary' : 'Nahu' in Adi	Stored grains	Sarangi et al., 2009
	language	Rodents	
60	Scorulla parasitica : Prepare gum from the	Stored grains	Sinha, 2010
	fruits, fix in sticks and put in possible rat	Rodents	
(1	runways for trapping	0, 1	<u> </u>
61	<i>Cyathula tomentosa</i> (Changha kakhra):	Stored grains	Sinha, 2010
	Branches and inflorescence for catching	Rodents	
62	Tais Diagong of burrows by paddy busy and	Stored grains	Chhatry 2000
02	local chilly land races	Rodents	Cilleti y, 2009
63	Sprinkling wood ash on vegetable crops	Vegetables Sucking	Barooah and Pathak
05	sprinking wood usir on vegetable crops	pests	2009
64	Growing border mixed crops (broad leaf	Vegetables Many	Chanu, 2010
	types) such as pumpkin, cucumber, lady's	pests	,
	finger, banana and other horticultural crops	1	
	like guava, pineapple, etc.		
65	Local crabs are smashed and put on the top	Vegetables (Kitchen	Sinha et al., 2004
	of a pointed stick and is placed in crop	garden)Bugs and	
	fields	beetles	
66	Spraying of mixture of Cowdung,	Vegetables (Kitchen	Sinha et al., 2004
	Cowurine, Chili & Garlic @ 2:1:0.5:0.25	garden)Defoliators	
	ratio		

67	Spraying of dissolved silkworm excreta	Vegetables Defoliators	Sinha et al., 2004
68	Spraving of "Re'not-bol" plant extract	Vegetables	Sinha et al., 2004
		Lepidopteran larva	,
69	Fruit trees (Bridelia retusa) and animal	Fruit trees Many	Saravanan, 2010
	bone tied with horticultural plants	pests	
70	Use of 'Changsim' (Sapium baccatum	Kitchen garden and	Sinha et al., 2004
	Roxb.) or 'Tuthekme' [Dendropthoe falcata	fruit trees	
	(L.) Elting.] or 'Rakseng' (Morus macroura	Lepidopteran pests	
	Mig.) or 'Khasi-bol' (Bridelia retusa		
	Spreng.) fruits to attract insect predators		
71			01 1
/1	Planting of <i>Calotropis</i> in the field of ginger	Ginger Many pests	Shrivastava et al., 2009
72	Bhang leaves and soil is mixed in the ratio	Ginger Many pests	Sinha et al., 2004
	1:1 and is kept for 12-24 hours for proper		
72	intermingling.		D 1 + 1 2006
/3	Smoking in the pumpkin field	Pumpkin Fruit fly	Deka et al., 2006
/4	stored potato.	Potato Tuber moth	Deka et al., 2006
75	Placing of red tree ant (Oecophylla	Citrus Defoliators	Deka et al., 2006
	smaragdina) nest on the citrus plant.		
76	Application of fish cleaned water at the base of plant	Citrus trunk borer	Barooah and Pathak, 2009
77	Application of fish cleaned water at the base	Citrus trunk borer	Deka et al 2006
	of plant		,,
78	Introducing predacious red tree ants nest	Citrus trunk borer	Barooah and Pathak,
	into the fruit orchard		2009
79	Application of kerosene oil to the fruit tree	Citrus trunk borer	Barooah and Pathak,
	trunks		2009
80	Common salt is applied to the base of plants	Banana Snails and slugs	Barooah and Pathak, 2009
81	Smoke is generated at the base of fruit trees	Fruit moth Jack fruit	Barooah and Pathak
		mango	2009
82	Catapults and drum beating	Birds and monkeys	Barooah and Pathak,
		Fruit orchard	2009
83	'Peit Ksain Kwai'	Red palm weevil	Umdor, 2004
	(Checking the grubs in nuts)	Arecanut	
	Killing the larva by inserting wire hook in		
	the bored hole and also form soil below the		
0.4		D1 1 1	D 1 ( 1 000)
84	Placing of long hair of women in the crown	Khinoceros beetle	Deka et al., 2006
0.5	portion of coconut tree	Dhiman 1 11	D-1+ 1 2006
85	Placing of a dead frog at the base of the	Kninoceros beetle	Deka et al., 2006
06	The freemonted hymen heir and dry fint	Coconut Squirrel Cocorrect	Dalza at al 2006
80	mixture are kept in the group	Squirrei Coconut	Deka et al., 2006
	mixture are kept in the crown		

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