

Ki dawai bio pesticides	Ki rukom pyndonkam (method of applications)	Ha kino ki jait jingthung lah ban pyndonkam
1. <i>Beauveria bassiana</i> 2. <i>Bacillus thuringiensis var. kurtsaki</i>	1. Hap siat ia ka dawai da kaba khleh 16 shamoit sha ka dawai ha ka shi pump ka um 2. Hap siat ka dawai man ka 15 sngi	Baroh ki jait jingthung Kine ki dawai ki pynduna ia bun jait ki khniang ba kha da ki thabalieh lane ki thab long (Lepidopteran caterpillars)
Pheromone trap	1. Buh ia kine ki shrip ha ka por ba lah don ki thawalieh ha ki jaka rep 2. Don kam 100 tylli ha ka 1 haktar ka jaka rep 3. Buh kumba 1 mitar haneng ki jingthung 4. Hap kyliang ia kine ki iwbi khniang (pheromone) man ka 25 sngi	Baingon, sohsaw ,kubi, phul kubi, broccoli Kane ka shrip ka pynduna ia ki khniang EFSB, <i>H.armigera</i> , DBM, <i>S.litura</i>

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Lures (ME), Cue lures	<ul style="list-style-type: none"> • Buh ia kine ki shrip ha ka por ba lah mih soh • Don kam 5 tylli ha ka 1 acre • Wah ia kine ha ki dieng soh • Hap kyliang ia ki man ka 25 sngi 	Soh peach, ki jait soh niamtra, sohkha, krela, ki jait pathaw, u piskot, soh pieng, ka kait, soh plum Kane ka dawai ka pynduna ia bun jait ki ksain skain (fruit fly)

Ka jingkylli ba kylli bha ki nogrep (FAQ)

1. Hato kine ki dawai biopesticides ki trei kam?

Jubab: Lah ban ong ba ka jingpyndonkam tang ia kine ki dawai kam lah ban pynduna ia ki jingpang lane ki khniang. Donkam ban ia trei ryngkat lang bad kiwei kiwei ki lad jingiada (cultural management), kum ka jingjied ia ki symbai ba bha, ka por thung ba biang, ka rukom ai sboh ba biang, ka jing leit jngoh ia ki jingthung jingtep na ka por sha ka por bad kiwe kiwei de

2. Ha kiei ki jait jingthung ba ki myntoi ban pyndonkam????

Jubab: Ki dawai bio pesticides ki trei kam bha ha ki jaka rep ba ym pat ju pyndonkam ia ki bih khniang mynshuwa Ka bam por 3 haduh 4 snem ia ki ban trei kam ha ki jaka rep ba lah ju pyndonkam ia ki bih khniang .Ki jait jingthung kum u sying, u shynrai, u sohtrun, u soh pyriam, u riwhadem, ki jait rymbai bapher bapher ki myntoi shibun lada ngi pyndonkam ia kine ki dawai bio pesticides

KATTO KATNE SHAPHANG KI DAWAI BIO PESTICIDES BAD KA RUKOM PYNDONKAM IA KI



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Ka jingmut Bio pesticides

Biopesticides ka wan na ki ar kyntien kata; **Bio** kaba mut jingim bad **Pesticides** kaba mut ki bih .Kine ki bih ki lah ban pyniap ia ki jait jingpang bad ki khniang bapher bapher ba wan pynjulor ia ki jingthung jingtep.

Ia ki kine ki bio pesticides la shna na ki phngit jingim bapher bapher ba don ha ka khydew ka jong ngi.

Haba kumta ki bio pesticides ki long bih ia ngi ki briew?

Em, ki bio pesticides kim long bih ia ngi ki briew. Lah ban ong pynban ba ki long kum ki kynja dawai namar ba kim don jingktah ia ki briew bad ia ka mariang. Ki pyniap tang ia ki jingpang lane ki khniang ba ki thmu.

Ki jait bio pesticides

Ia ki dawai bio pesticides lah ban phiah ia ki ha ki 3 bynta da kaba pynshong nongrim ia ki ha ka rukom shna.

1. Lah ban shna iaki na ki phngit jingim (**Microbial biopesticides**)

Nuksa: *Trichoderma, Pseudomonas, Spinosad, NPV, Bacillus, Beauveria, Metarhizium*, EPN bad kiwei kiwei de

2. Lah ban shna ia ki na ki kynbat, ki phlang, ki syntiew ,ki sla dieng bad kumta ter ter (**Botanicals biopesticides**)

Nuksa: Rynsun, Neem, Sohmynken, Duma mutia, Diengkseh....

3.Lah ban shna ia ki na ki iwbihih jong ki khniang kyntei khnang ban khring ia ki khniang shynrang hapoh ki shrip (**Biochemical biopesticides**)

Nuksa: Pheromones (shrip),lures

Ki jingmyntoi ba ioh na ki dawai biopesticides

- Kine ki jait dawai ki mang ban pyniap tang shi jait lane ar jait ki khniang (host specific), kumta kiwei pat ki jait khniang kiba don ha ka mariang kim iap

- Kam don ka resistant lane ka cross resistant ha ki khniang

- Kine ki dawai bio pesticides ki dei ki dawai, ym ki bih, kumta kim don jingktah ia ki briew
- Ki ia trei ryngkat lang bad ka mariang (ecofriendly)

Ki jingeh haba pyndonkam da ki dawai bio pesticides

- Ki trei kam tang ha ki khniang lane ki jingpang kiba lah mang, kumta hap pynedonkam bun jait ki dawai bio-pesticides ha shi jait u jingthung
- Bunsien hi hap pyndonkam ryngkat lang bad kiwei pat ki lad jingiada khnang ba yn duna ki khniang lane IPM (Integrated Pest Management)
- Ki dawai bio pesticides ki trei kam suki jai jai, kumta hap siat ia ki bio pesticides ha shuwa ba ki khniang lane ki jingpang kin wan (prophalytic spray) . Hap siat ruh bun sien haba ia nujor bad ki bih kiba duna ka rukom siat
- Kine ki dawai ym lah ban buh slem shisien ba lah plie (hapoh ka 6 bnai) bad ruh ym long ban buh ha ki jaka ba shoh ki kjat sngi.

Ki jinghikai shaphang ki bio pesticides



Ka rukom pyndonkam ia ki dawai bio-pesticides

Ki dawai bio pestcides	Ki rukom pyndonkam (method of applica-tions)	Ha kino ki jait jingthung lah ban pyndonkam
1. <i>Trichoderma</i> spp 2. <i>Pseudomonas fluores-cence</i>	1. Khleh bad ki symbai kumba 1-2 shamoit ka dawai na ka bynta shi kilo u symbai 2. Wieh ia ki tynrai symbai shuwa ba yn rah tynrai kumba 30 minit ha ka 1-2 shamoit ka dawai ha shi litar ka um 3. Khleh bad ka eit masi kumba shi kilo / litar ka dawai ha ka shi ton ka eit masi	Ha baroh ki jait jingthung Kine ki dawai ki lah ban pynduna ia bun jait ki jingpang bapher bapher
1. Entomo Pathogenic Nema-tode (EPN) 2. <i>Metarhizium anisopliae</i>	1. Pyndonkam ha ka por shuwa ban thung da kawa khleh ryngkat lang bad ka khyndew ha ka por ba lur lane puh 2. Khleh 200 gm ha ka 50 kg ka eit masi na ka bynta shi acre ka jaka rep 3. Lah ruh ban ber nar-ud narud ki tynrai diengsoh	Baroh ki jait Jingthung Kine ki dawai ki pynduna ia bun jait ki khniang khamtam ki khniang ba don hapoh khyndew