

Bagrada bug

Namibian crop pests # 22

Bagrada hilaris

Order: Hemiptera

Family: Pentatomidae



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Bagrada bug on cabbage

Common names: **Bagrada bug, Harlequin bug, Painted bug** (English), **Shingurukutu** (Gciriku)

Host: Mainly *Brassica* spp. (cabbage, Chinese cabbage, kale, rape), but also beetroot, groundnut, potato and papaya are known to be attacked.

Pest status: A major pest of Cruciferous crops in many parts of world, including southern parts of Africa. In Namibia the pest is manifesting itself in the Kavango and Caprivi regions. The bugs prefer the cooler conditions of the year and therefore occur in North-eastern Namibia mainly from April/May onwards up to August/September. Apart from the Tsumeb area, the pest is less problematic in the NCD regions (Omusati, Ohangwena, Oshana and Oshikoto regions).

Description:

The eggs are white and turn orange in a later stage. They are laid in small clusters, on the leaves, but mostly in the soil underneath. More than 100 eggs may be laid during a period of 2-3 weeks. The incubation period is 5-8 days.

There are 5 nymphal stages, which take 2-3 weeks for development. The nymphs are shiny red (± 2 mm), becoming mahogany in colour in a later stage and can easily be mistaken for a different insect.

The adult bug is typical shield-shaped, 5-7mm long. The upper surface has a mixture of black, white and orange markings. The whole life cycle takes only 3-4 weeks and there are several generations per year.

Damage:

Both adults and nymphs feed by sucking on the foliage of the crop. Starting on the edges of the leaves, white patches become visible, eventually the leaves wilt and dry. Young plants/seedlings often die completely.

Control:

Use of botanical pesticides:

Natural control methods are currently tested at Mashare ADI. A mixture of chilli, soap, garlic and paraffin has shown to be an effective control method in previous trials. A tobacco extract was less effective, but reduced the population slightly. Further testing of botanicals will continue this season. For more details contact the Horticultural section at Mashare ADI.

Cultural practices:

Eggs laid in the soil are readily killed by cultivation, so frequent light cultivation (once, twice a week) of the vegetable beds will help greatly in control of this pest. The residues of all Crucifers (including weeds) should be destroyed to reduce the carry-over between crops and seasons. Regular monitoring of the crop is important. Handpicking of the bugs when seedlings are still small helps to reduce damage to the young and vulnerable plants. A vegetable grower in Tjeye (Kavango) reported that handpicking the insects, collecting them in a jar, pound them and sprinkle the remains over the crop, repels other bugs and can be used effectively in combination with frequent soil cultivation.

Chemical control:

Insecticides such as Malathion and Malasol, (active ingredient mercaptothion), Carbaryl and Karbaspray (a.i. carbaryl) can be

used to control heavy attacks, but should always be used as a last resort. Contact your nearest Agricultural Extension office of FSR/E-Unit for more advice on the safe and effective use of chemicals.

Threshold level:

Research at Mashare ADI has shown that if the number of bugs/m² exceeds 1, in the early growing stage, control measurements should start. If the crop has past the early growing stage, a higher threshold level of 3 bugs/m² can be maintained. The economical threshold level is the pest density at which control measures should be initiated to prevent an increasing pest population from reaching the stage at which the economical loss is higher than the benefits.

References:

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