



PAINTED BUG,
BAGRADA BUG

Bagrada hilaris

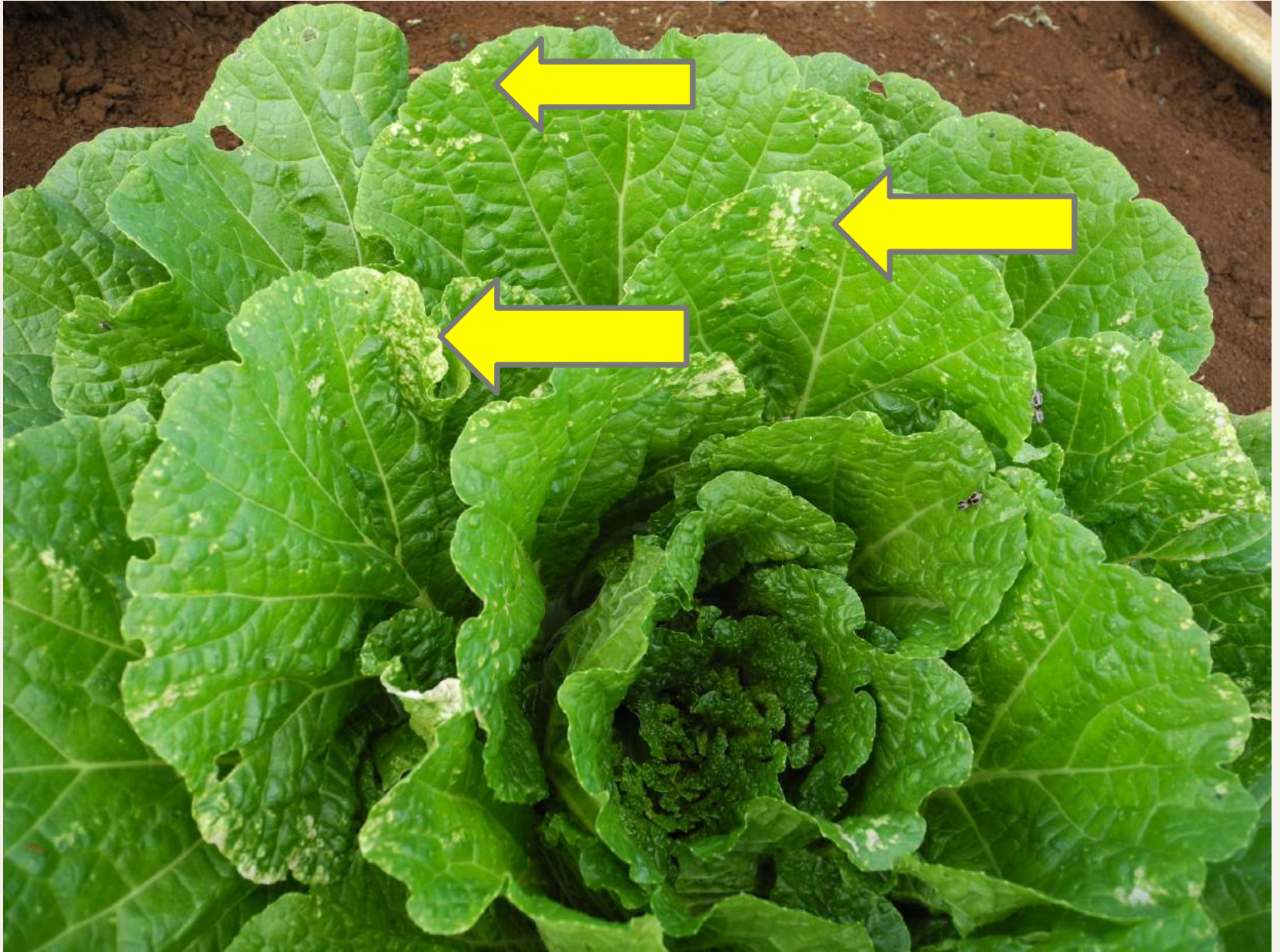




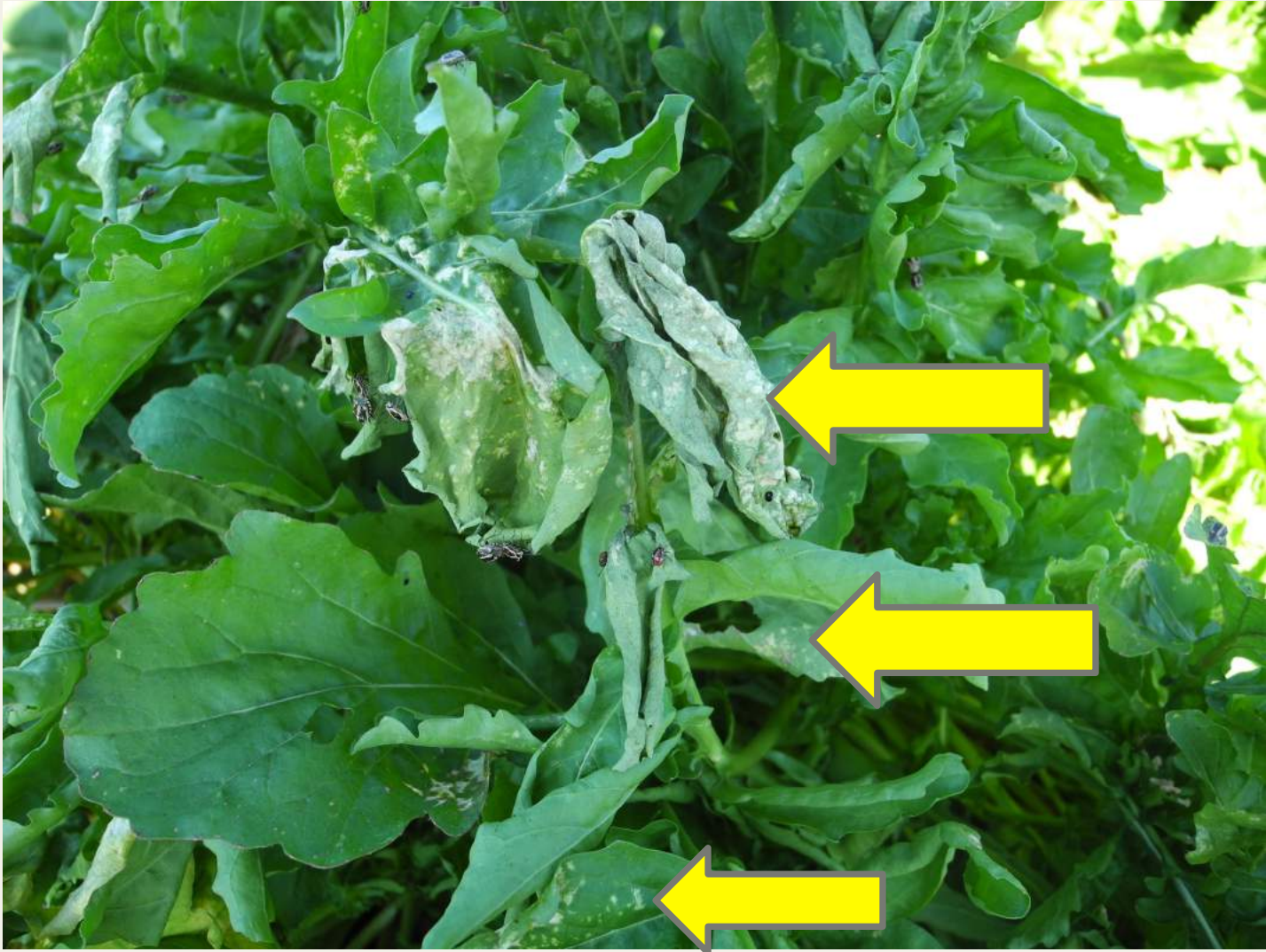




Damage caused by feeding: Chinese Cabbage



Damage caused by feeding arugula



Bagrada Life Habits at Kula, Maui

- Adults show on upper plant surface at about 10 am and later
- Nymphs (immature stages) usually inhabit lower plant surfaces or in the soil
- Nymphs don't seem to show until food quality on lower plant had diminished
- Eggs are laid on the soil or lower plant surfaces

Damage caused by feeding: Arugula



Damage caused by feeding: Mizuna



Multiple head damage caused by feeding on broccoli





Host Range Tests at Kula, Maui:

Best host

- Arugula
- Chinese cabbage
- Mizuna

Not preferred

- Broccoli
- Daikon
- Baby pak choy
- Head cabbage
- Cauliflower
- Collard
- Kale
- Mustard greens
- Mustard cabbage
- Radish

Host Range Weeds -Arizona:

Preferred

- London rocket
- Mustard
- Shepards
purse
- Sweet alyssum
- Sudan grass
- Vetch

Marginal

- Groundsel
- Sowthistle

Pest Management:

Conventional control

- Insecticides. Effective products have been found by AZ and CA researchers
 1. *Pyrethroid insecticides (bifenthrin [Brigade] & lambda cyhalothrin [Warrior]) are effective*
 2. *Carbamate insecticides (methomyl [Lannate]) are effective*
 3. *Naturalyte insecticides (spinetoram [Radiant]) may be effective but Spinosad is not reported to be effective*
 4. *Neonicotenoids (dinoterfuran [Venom]) seems to be effective as a spray*

Pest Management: Organic culture

- Insecticides labeled for organic production were not as effective as those for conventional production. Insecticides evaluated were *Pyganic*, *Aza-Direct*, *M-Pede*, *Entrust*, *Surround*

Pest Management: Biological Control

- No effective parasitoids or predators are known
- Mainland researchers have started exploration programs