

The Bagrada Bug, a New Invasive Pest of Cole Crops

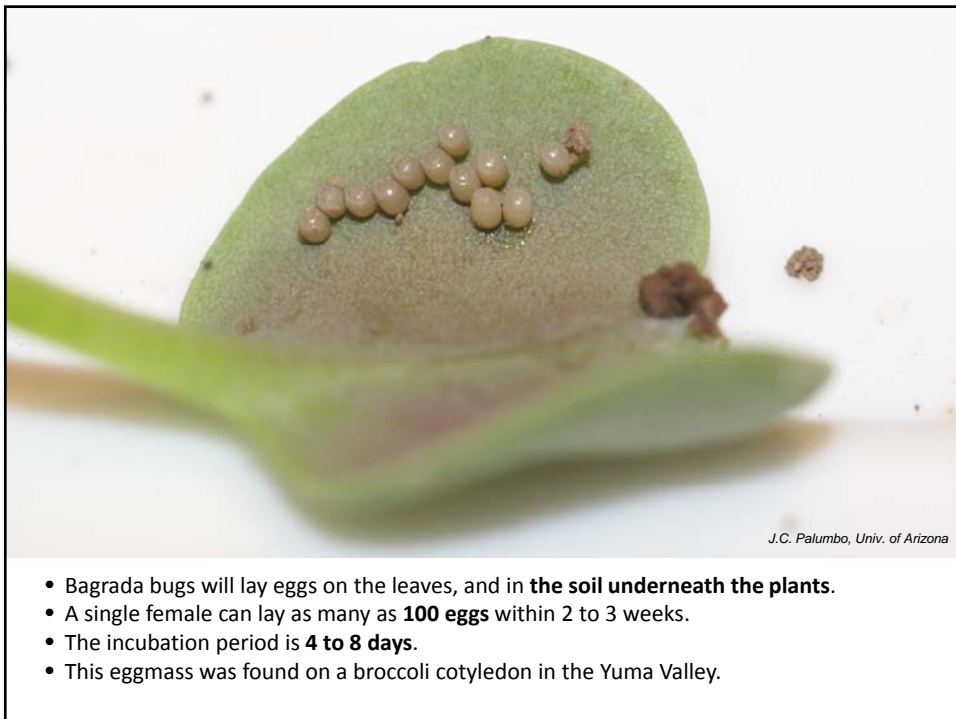
John Palumbo, Yuma Ag Center
University of Arizona, Yuma



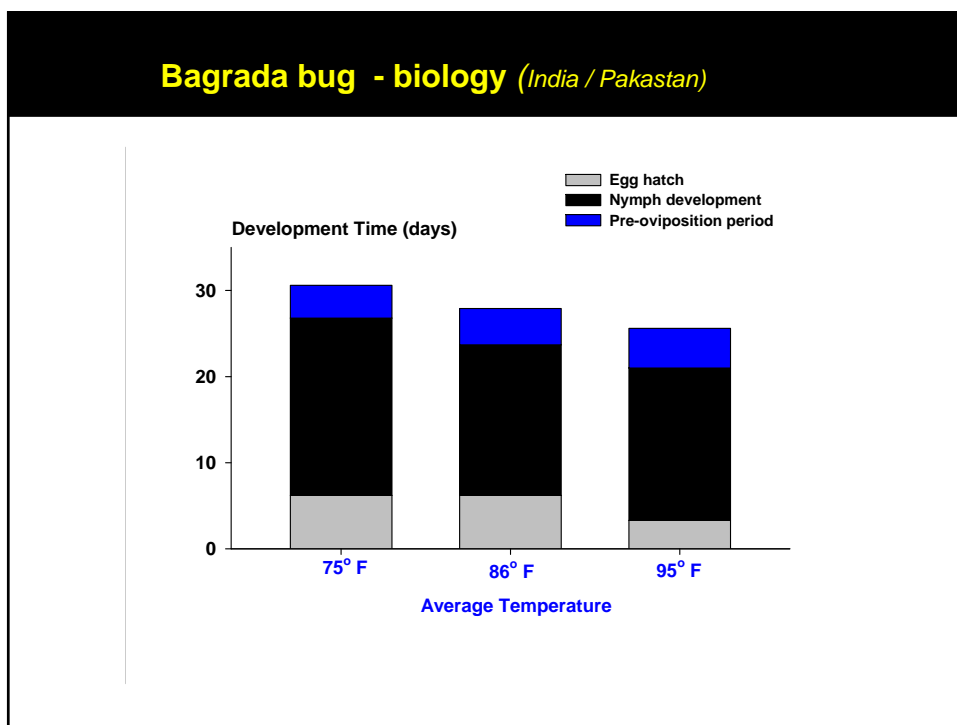
Harlequin bug
Murgantia histrionica



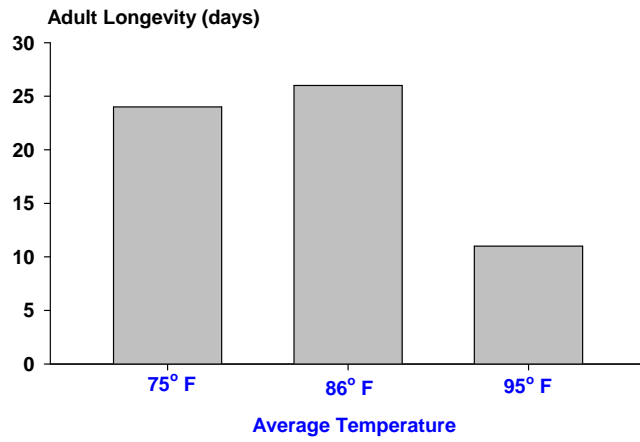
Bagrada bug
Bagrada hilaris



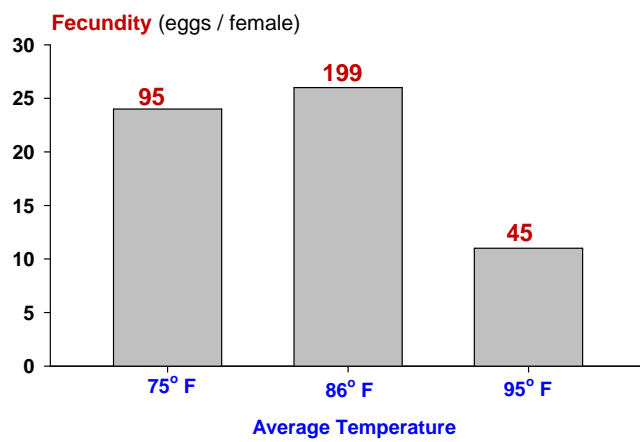




Bagrada bug - biology (India / Pakistan)



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Host Range



Cruciferous

canola	chard
broccoli	mizuna
cauliflower	bok choy
cabbage	napa
broccoflower	arugula
kale	mustards
turnips	rutabaga
radish	collards

Agronomic

potato
maize
sorghum
cotton
legumes (?)
wheat
pearl millet
Capers

Host Range

Weeds

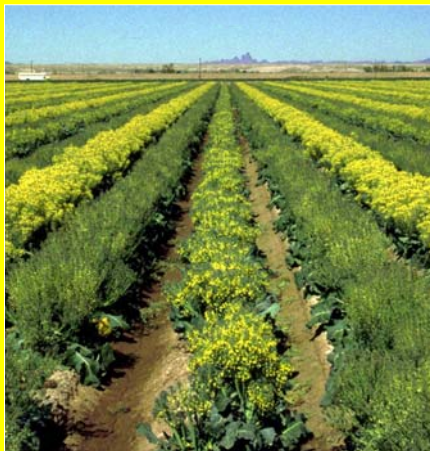
lambquarter
 black mustard
 purple nutsedge
Euphorbia spp.
 perennial sowthistle
 field bindweed
 shepardspurse (?)



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Host Range

*** Major pest of Canola & Brassica seed crops



Symptoms / Damage

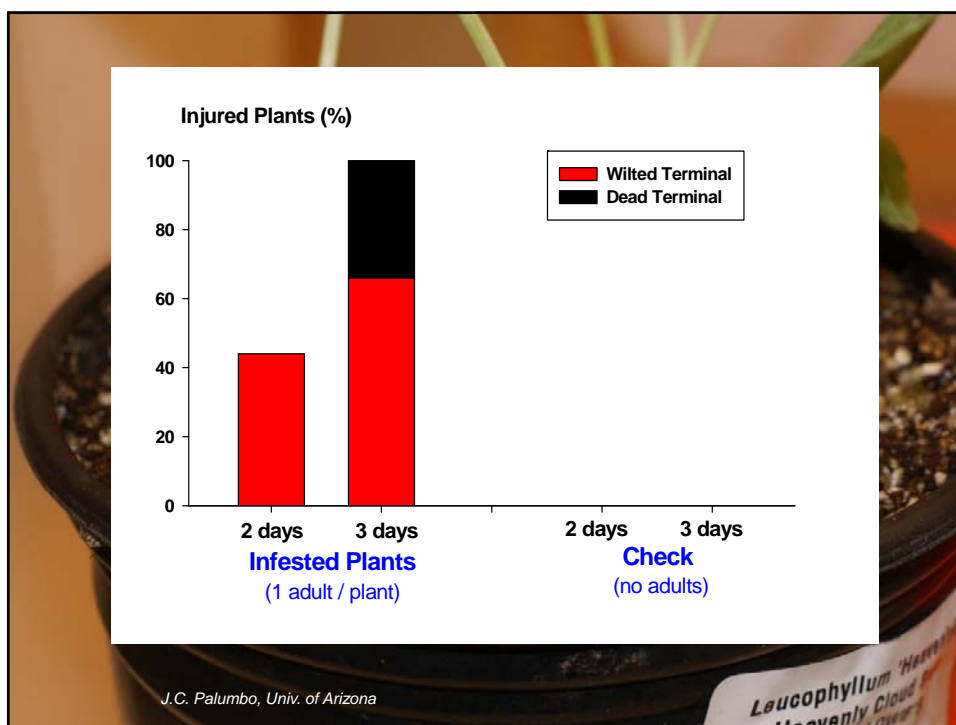


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Damage on leaves might be mistaken for herbicide damage (e.g., Goaltender)



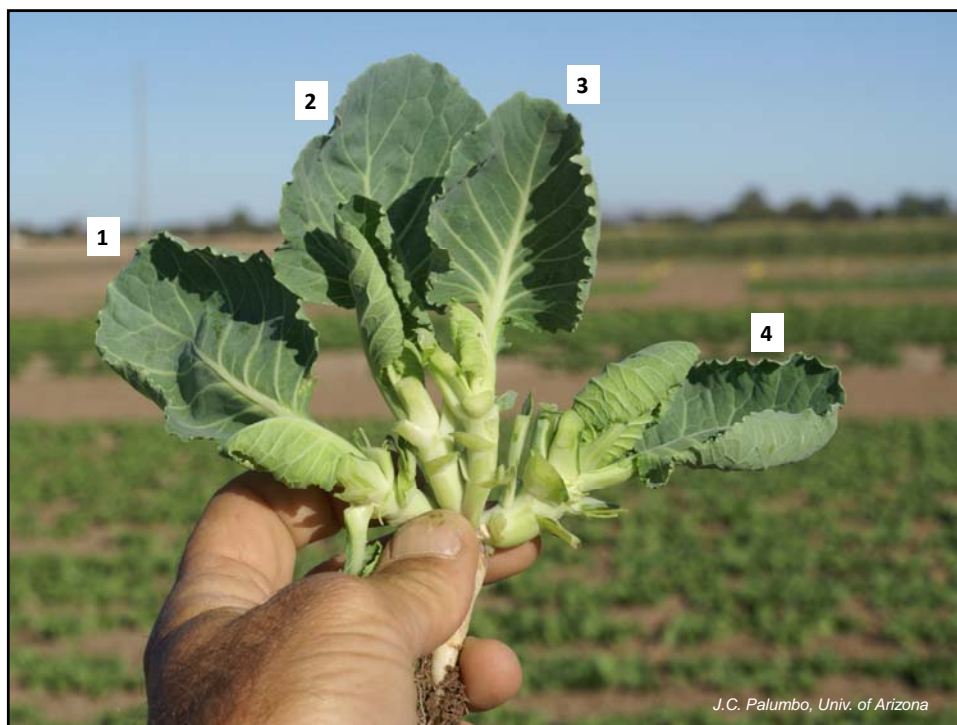




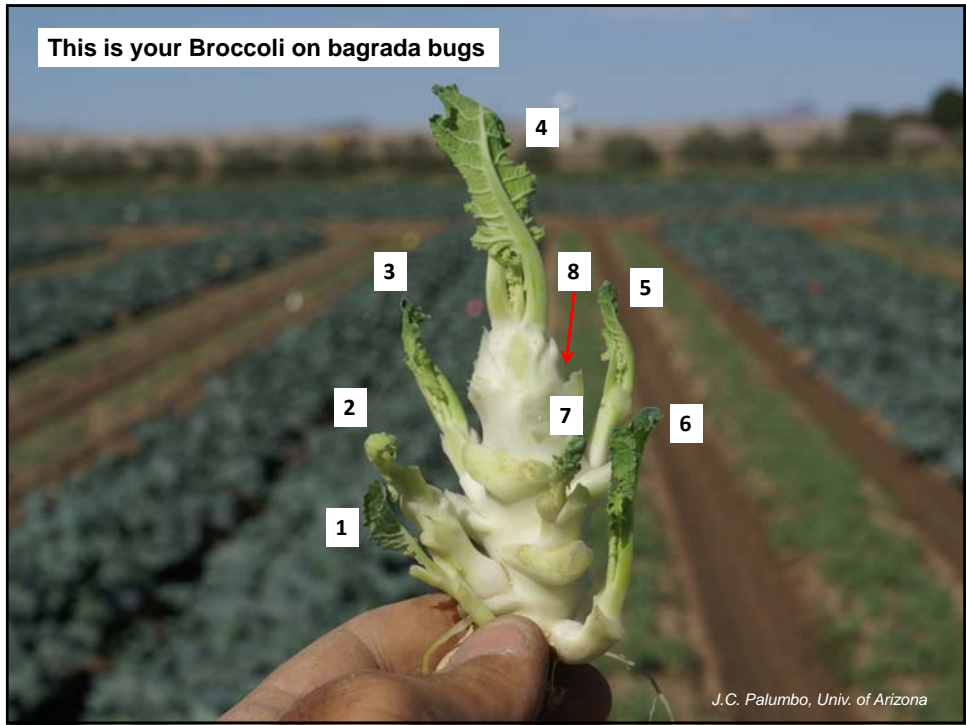
Adult braggada bug feeding on broccoli cotyledon, Coachella Valley, CA, Sep 2009.
Note: the mouthparts underneath head inserted into leaf tissue (arrow)





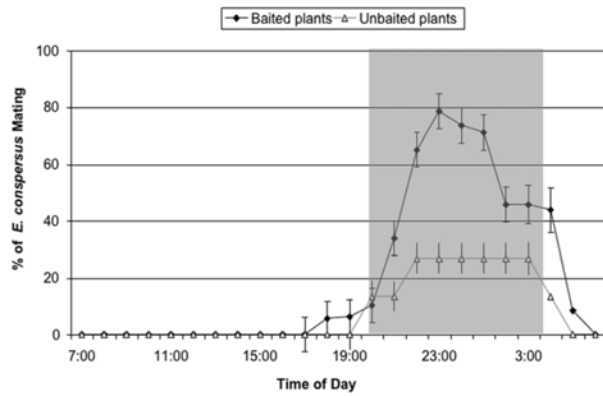






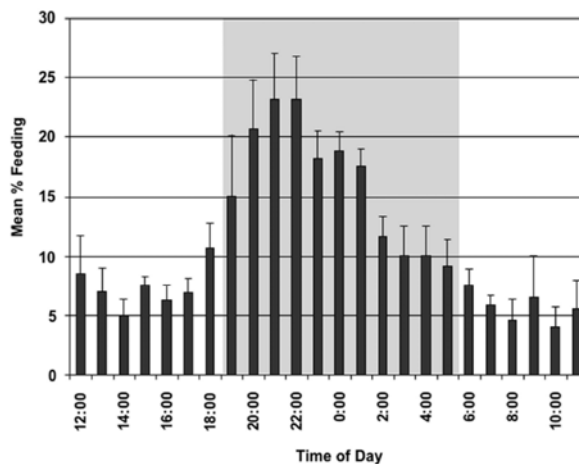
Are Bagrada bugs more active at Night ?

Conspere stink bug
Euschistus conspersus



Are Bagrada bugs more active at Night ?

Southern Green Stink Bug
Nezara viridula

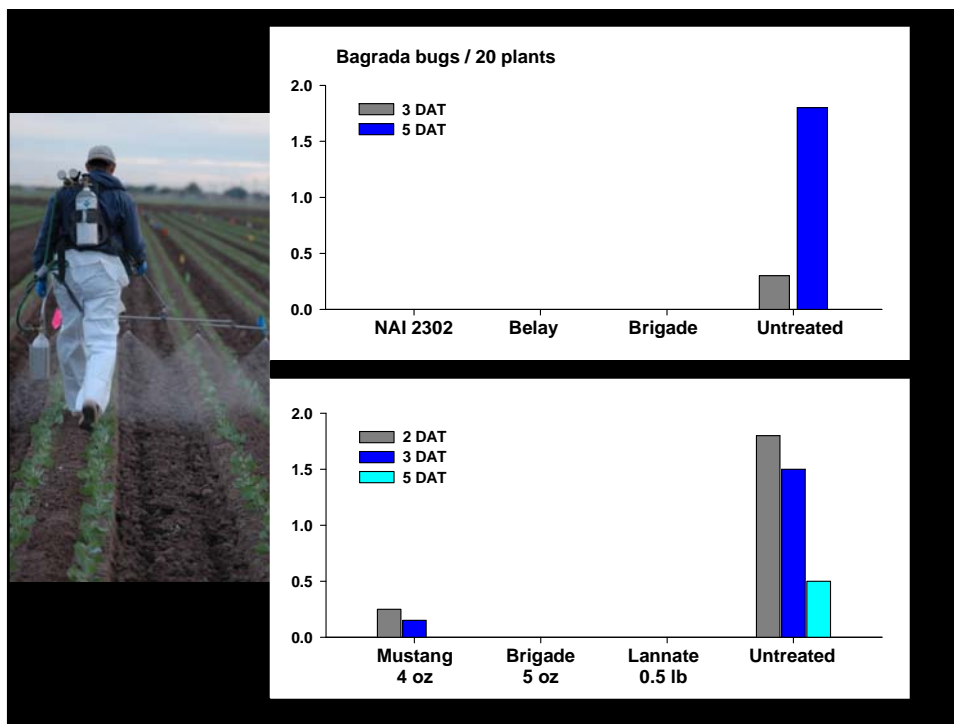


Effective Chemical Control – India and Pakistan

OP / CH		Seed	
Carbamates	Pyrethroid	Treatments	Others

Lorsban	Warrior	Azodrin	Garlic
Azodrin	Mustang	phosphamidon	Pepper
Endosulfan	Asana	carbosulfan	Soap
MSR	Danitol	lindane	Tobacco
lindane	fluvalinate		Neem
malathion	pyrethrin		
Sevin			
dichlorvos			
phosalone			
MSR			

Economic Threshold:
 -Seedlings: 1 bug/m²
 -Larger plants: 3 bugs



Bagrada Bugs

Alternatives for Bagrada bug Control in Desert Cole Crops

Lannate Lorsban Diazinon Orthene	1
Warrior Mustang Max Asana Voliam Xpress	1
Venom Assail Belay	2

- All of these products have shown good control of Harliquin bug in the southern and eastern U.S.

