

PROTECTING YOUR HARVEST...

School gardens can be a beautiful feature within the school community, however they may attract a wide range of pests including chickens, insects, and many others. Here are some safe and natural remedies that can help decrease pest pressures and protect your keiki's harvest!

CHICKENS & OTHER BIRDS

Many schools have issues with birds eating young sprouts and nearly mature fruits in their gardens. Unnatural iridescence is confusing and frightening to most birds. Hang bird reflector tape or old CD's above your garden to help keep the birds away. Burlap coverings can be used to keep birds away from your seeds until they sprout. One ĀINA school even used a motion sensor triggered sprinkler to frighten chickens away whenever they would appear!



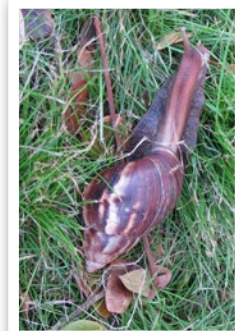
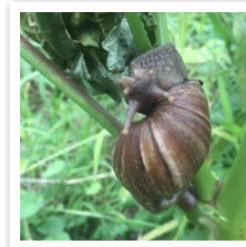
WILD PIGS

Pigs can be incredibly destructive to a garden. As pigs root through garden beds for food they destroy many plants that they do not even eat! Although it is expensive, a sturdy fence at least three feet tall is the best way to exclude these pests from your garden area. If your garden is already fenced in, look to reinforce any potential entrance points. One school gardener from an area with a large pig population suggested planting 'uala outside of the pig fence to satiate them before they can enter the garden. Another suggested building garden beds to be three feet tall, keeping crops out of the pigs line of sight. If none of these ideas work, consider inviting members of the school community to remove wild boars through methods approved by your school administrators.



SLUGS & SNAILS

Slugs and snails can pose a significant threat to gardeners as well as crops. Please refer to our resource sheet "**How to Practice Slug and Snail Removal in the School Garden**" for more information.



HUMAN DISTURBANCE & VANDALISM

Vandals are less likely to disturb a well tended garden. Show your garden is loved by posting student artwork and bright signage made by keiki. Planting ti-leaf to create a distinct garden area can also help protect your beds! Also, an invested school community will help keep an eye on the garden. Invite your community to garden events and offer many ways for interested families to stay engaged.



Chicken and pig photos by Forest and Kim Starr

How to...

Practice Green Pest Management

INSECTS & BUGS

Intercropping:

Many garden pests use visual or scent cues to find food. Planting the same or closely related crops together makes it easy for pests to infest and spread between plants. Mixing plantings from different families in the same bed can prevent insects from finding those visual and scent signals. In this photo tatsoi, daikon, and snap peas are spread throughout in a mixed row.



Decoy Crops:

Many pests are generalist feeders and will eat a variety of vegetables. However, this does not mean they don't have favorites. Quick growing preferred vegetables can pull pests away from your garden! One school found that Japanese flower beetles stopped eating other vegetables to focus on a newly planted row of beans. Experiment and find what combinations protect your most important plants!



Companion Planting:

Many common vegetables and herbs contain natural chemicals that smell or taste bad to pest plants. Growing herbs like rosemary, basil, and fennel or flowers like marigolds in mixed garden beds can share these protective powers with less defended crops! Look at the 'ĀINA in Schools First Grade Good Buddy Unit for more examples of companion plantings.



Fertilize Appropriately:

Aphids love sweet and juicy sap. An aphid explosion in your garden may be caused by over fertilizing your garden beds. Existing aphid populations are best removed by wiping them away by hand or spraying them away with a hose.

Attract Helpful Predators:

Healthy natural ecosystems have a balance between plants, pest insects, and predatory insects. Leaving an area of your garden fallow (growing either a variety of cover crops or whatever plants naturally seed there) can help create a habitat for some of these predatory insects.



Additional Tips & Resources:

The wide variety of climates found in Hawai'i support a diverse population of agricultural pests. While our general recommendations may be useful, there is a wealth of knowledge to be found about the peculiarities of pest management in your specific 'āina. Here are a few places to find more information:

- Ask neighbors about what's worked for them!
- Get to know farmers at your local Farmers' Market and see if they have ideas.
- **University of Hawai'i College of Tropical Agriculture and Human Resources (CTAHR) Cooperative Extension Service**
<https://cms.ctahr.hawaii.edu/ce>
Diagnostic Service Center, 808-956-6706
- **UH CTAHR Publications**
www.ctahr.hawaii.edu/freepubs
- **UH Master Gardener Helplines**
www.ctahr.hawaii.edu/UHMG/helpline.asp
- **Sustainable Agriculture Research & Education**, www.sare.org/Learning-Center
- **Student and Food Safety: Best Practices for Hawai'i School Gardens**
www.ctahr.hawaii.edu/oc/freepubs/pdf/FST-45.pdf
- **How to...Practice Slug & Snail Removal in the School Garden Resource Guide**,
www.kokuahawaiifoundation.org/aina/resources
- **Rat Lungworm Disease Educational Materials**
<http://pharmacy.uhh.hawaii.edu/rlw/education.php>