

Trap Cropping

By Kathy Wolfe
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Key techniques help maximize efficiency

Although many of us are unfamiliar with the term “trap cropping,” we may have used this technique in our gardens. If you have ever planted nasturtiums near your vegetables to help lure insects away from your edibles, you were using a trap crop. This form of companion planting can save the main crop from decimation by pests without the use of pesticides, preserve the indigenous natural enemies, improve the crop’s quality, and help conserve the soil and the environment.

There are a few key techniques that can help maximize the efficiency of trap crops, also known as sacrificial crops, as another tool in your Integrated Pest Management (IPM) program.

Destructive pest insects are most attracted to plants in their reproductive stages of flowering, fruiting or seed setting. Therefore, it is important to plant your trap crop before your main food crop to create a first line of defense against these critters.

There are two basic ways to use trap crops. The first method is to plant the same species as the main crop about two weeks prior to planting your main crop. The trap crop works as a sacrificial target to the first invasion of insects. The first crop is removed from the garden before the main crop flowers. This technique works best with larger plantings and in climates which have a longer growing season than in Pacific Northwest.

The second method is to use a different species of plant from your main crop, one that is more attractive to your targeted pest. Planting is done before the main crop flowers and can be placed around the garden perimeter, in alternating rows with the main crop or randomly inserted.

Border trap crop planting is an effective way to surround the perimeter of your garden or main crop. This works best with insects that have an intermediate flying capability that will congregate on the first plants they fly through on their journey to your garden. Strong flyers and insects blown in by the wind can more easily reach into your main crop and avoid the border planting. Intercropping with alternating rows of trap and main crops can also be effective. Mixed intercropping, where trap crops are placed randomly, is a third alternative.

The first step in getting started is to identify the pest you will be targeting and understanding which trap crop and which planting method will work best. Start your trap crop early and continue to stagger new plantings every 2-3 weeks to provide extended season control. Check

traps often and remove insects or portions of the plant containing insects. Should you leave the trap crop unattended for too long, the insect pests will continue to reproduce and multiply, exacerbating your problem.



Nasturtiums are often used to trap aphids away from food crops. *Photo by Nancy Crowell / WSU Skagit County Extension Master Gardeners.*

Some examples of trap crops to try are nasturtiums to attract aphids and flea beetle; radishes intercropped to trap flea beetles, root maggots and cabbage maggots away from plants in the cabbage family; chervil to lure in slugs; mustard intercropped in cabbage to attract cabbageworms; and French marigolds to attract thrips, nematodes and slugs.

Trap crops are just one of the methods you can use together with other Integrated Pest Management techniques such as diversifying planting to prevent pests from concentrating on one area; including multiple flower species to attract beneficial insects to the garden; and incorporating crop rotation, biological and mechanical controls to help deter pests while reducing chemical spraying. See the “Ask the Master Gardener” column published August 3, 2018 for more detailed information on Integrated Pest Management and its use in the home garden.

If you have questions or need advice about vegetable gardening, contact us at skagitmgplantclinic@gmail.com for help or visit <https://extension.wsu.edu/skagit/mg/> or www.skagitmg.org for resources.



Scented French marigolds can be both a companion plant and trap crop. They attract beneficial insects (companion) but also snails and spider mites that then can be removed from the garden (trap crop). *Photo by Nancy Crowell / WSU Skagit County Extension Master Gardeners.*

RESOURCES:

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<https://foodsystems.wsu.edu/pest-management/vegetables/>
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- “Trap Cropping to Control Pests.” Jeremy Dore. Grow Veg website. June 4, 2010.
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- “Trap cropping.” PAN Germany, OISAT (Online Information Service for non-Chemical Pest Management in the Tropics).
http://www.oisat.org/control/cultural_Practices/trap_cropping.html.
- “Trap Cropping: A simple, effective and affordable Integrated Pest Management strategy to control squash bugs and squash.” Jaime Pinero. Lincoln University, Integrated Pest Management. University of Missouri, March 16, 2017.
https://ipm.missouri.edu/MEG/2017/3/Trap_cropping/
- “Decoy Trap Plants – How to Use Trap Crops for Controlling Insect Pests.” Gardening Know How website.

<https://www.gardeningknowhow.com/edible/vegetables/vgen/using-decoy-trap-plants.htm>

- “How to Use Trap Crops – Organic Pest Management for Gardeners.” Stephen Scott, Terroir Seeds, Gardening Advice. Organic Pest Management blog.
<https://underwoodgardens.com/trap-crops-organic-pest-management-for-gardeners/>