



How to Safely Grow Seedlings for a Seedling Swap in the time of Jumping Worms: Guidance from Allen Pyle, UW Extension

Last year there were several [news stories](#) about jumping worms found in the Sturgeon Bay City Compost site. After doing some research, we found out that there have also been jumping worms found here in Brown County. This article is to help gardeners understand more about how to prevent jumping worm spread, how to test for jumping worms, and how to grow seedlings for a seedling swap or other types of plant sharing safely.

If you are unfamiliar with jumping worms, the WI DNR has a [webpage](#) to help learn about identification, effects and management of these pests.

COMPARISON: JUMPING WORM VS. EUROPEAN NIGHTCRAWLER

	
Brown/gray	Pink/reddish
Bodies are sleek, smooth and firm	Bodies are thick, slimy, floppy
Thrash when disturbed; snake-like movement	Wiggle and stretch when disturbed.
Light colored, smooth clitellum* that is flush with body, relatively close to head. Completely encircles body.	Reddish or pink clitellum* slightly raised from rest of the body. Partially encircles body (like a saddle).

The best way to minimize the potential to spread jumping worms in a plant swap or trade is to ensure that the plants exchanged have not been in contact with outdoor soil at any point.

For the safest way to do a seedling swap, plants should be grown indoors from seed in quality soilless media or bagged sterile soil without any added garden soil. Growers should also avoid adding compost unless they are certain that the compost was properly hot composted and not invaded by jumping worms after the composting process. Jumping worms have been reported to have been spread in compost that has not been hot composted (reaching 140 F minimum during production), or that has been invaded after composting is complete.

There are also some strategies that can help reduce the potential to spread jumping worms from plants grown outdoors in soil. Divisions of plants grown outdoors can be thoroughly washed to remove soil and active jumping worms to greatly reduce the potential to spread the pest. However, this will not necessarily remove all jumping worm cocoons, which are small and difficult to see. It is possible to spread the cocoons during the washing / bare rooting process, so this wash water should be collected or strained through nylon or fabric and the straining material disposed of, for best results.

Bare rooted divisions could potentially be transplanted to containers filled with soilless potting mix and grown outdoors on elevated surfaces (such as wooden pallets) to keep them from being in contact with the soil. Jumping worms have been observed beneath potted plants being grown outdoors on landscape fabric. If pots remain free of signs of jumping worms after growing for a month, they should be safe for sharing. A mustard solution can be used to flush pots to determine if any jumping worms are present, as an added measure of safety. (See below for solution info.)

Other recommended techniques for minimizing jumping worm spread include minimizing the potential spread of infested soil on equipment (including vehicle tires), tools, boots, and pots. Because cocoons are so small, it is possible that they can be moved on infected tools and equipment. Hot temperatures (104 or higher) are sufficient to kill cocoons. Dry storage of at least 2 years is also long enough to ensure there are no cocoons present.

As seed savers, it is good to note that seed collected from plants, even if the plants are in jumping worm infected soil, should not pose any risk as long as they have not come in contact with soil.

Mustard Solution to test for the presence of jumping worms:

A solution of 1/3 cup of ground mustard seed in 1 gallon of water when soaked into the soil will flush worms (including jumping worms) to the soil surface. Worms that emerge can be examined to determine if jumping worms are present. Note that this solution does not kill worms or harm plants.

Submitted by Melissa, N.E.W. Master Gardener