



## Japanese Beetle Strategies

Posted by [JZ](#)

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[JZ](#)

[Japanese Beetle Strategies](#)

July 27, 2013 12:52AM

Registered: 10 years ago

Posts: 7

I'm curious about who here is affected by Japanese beetle, your experiences, and what strategies you use to deter them from eating all your plants. In bad Japanese beetle years, I think the phrase "You can't stop them; you can only hope to contain them" seems fitting.

The beetles have been in this area for at least 10 years, and their population has been high for maybe 5-7 years.

Here's my experience:

2011: Average beetle emergence – Fourth of July? It seemed like a particularly big year. I was working at a vineyard at the time, and within a few days of emerging, the beetles had completely covered the border rows. Their numbers were easily in the tens of thousands. We were working a few rows away, and any time we would touch a vine, the beetles would tumble off and fly in every direction. I got used to the feeling of pokey legs on my skin as the beetles fell down my shirt. Not exactly my idea of a fun time, but hey. Anyway, one particular row at the edge of the vineyard bordered a neighbor's hayfield, and that's where the damage was the worst. To me, it seems Japanese beetles tend to do the best in untilled ground (like hayfields) or fertile/irrigated grass (suburban lawns, golf courses). And they have clear preferences. It seems the more wine grape (*V. vinifera*) in the plant's genetics, the better. These vines were Marechal Foch, a French hybrid, and the beetles loved them. Meanwhile, the leathery-leafed Concords were untouched. The combination of preferred plants in a border row adjacent to perfect beetle ground led to a perfect storm of beetles. At the vineyard, the strategy was simply to blast the orchard with Sevin, which created a rain of Japanese beetle carcasses. Not exactly a satisfactory approach when trying to grow healthy fruit.

Late summer/fall of 2011 was pretty dry in this area, which also happens to be when Japanese beetles are laying eggs, and larvae are feeding in the soil.

2012: Earliest beetle – June 15th, average 1-2 weeks later - the dry weather carried into spring, with below average rainfall, followed by basically no measurable rain from mid-May to mid-July. Japanese beetles were definitely present, but nowhere near previous levels. However, my observations were made about 100 miles south, and on apples, not grapes, so it's difficult to compare. A combination of neem oil, surround coverage, and a couple sprays of PyGanic on border Honeycrisp seemed satisfactory (following Michael's recommendations from The Holistic Orchard).

2013: Earliest beetle – June 26th – Average 2-3 weeks later – Low number of beetles, even compared to last year. Very minor damage on Honeycrisp, roses, basil, etc., but I just haven't seen many beetles. Biweekly neem sprays, heavy surround coverage on Honeycrisp only, and a single spot spray of PyGanic on actively feeding beetles in Honeycrisp rows.

Anecdotal observations:

Drought/weather has major impacts on Japanese beetle population. I'm guessing the beetles have a difficult time emerging through dry, hard soil. During the drought, the ground here was like cement. Another effect could be desiccation of larvae and pupae in the soil, leading to fewer adults.

Border rows have the most feeding. This is especially true adjacent to hayfields, lawns, etc.

Surround is effective, but it needs to be layered and put on heavily. I totally covered the Honeycrisp trees this year (nonbearing, so didn't need to worry about washing residues off), and I observed Japanese beetles walking sluggishly, not feeding, just sitting there, and reluctant to fly away unless I touched them (this is at all times of the day, so it's not just their normal morning sluggishness).

Neem may have repellent/deterrent effects, but it's difficult to measure. Sluggishness could be related to ingesting neem too. PyGanic seems to work fairly well for spot spraying border rows and preferred varieties, but I wouldn't want to overuse it. I think it's important to kill "clusters" of feeding beetles, otherwise they will attract more and defoliate individual trees, which can be a big setback.

I'd really like to see how the organic/holistic methods will do in a bad year for Japanese beetles, but for now, I'm counting myself lucky.

Anyone else have experiences with this bug?

[Reply](#) [Quote](#)

[Jeff Dintelmann](#)

[Re: Japanese Beetle Strategies](#)

July 28, 2013 05:15PM

Registered: 10 years ago

Posts: 2

Yes, we have them here as well. Neem applications seem to be helping, although this year populations do seem to be much lower, I suspect the same thing, two dry years in a row. Does this mean next year will be a bad year? The main thing I did in my small orchard is to cut down my plums and my one sweet cherry. The beetles would defoliate them twice a year, and then molest my apples and peaches. So I figured they were the big draw and got rid of them. So this year, the only tree that has much problem is Honeycrisp, and also my Lodi, once the Lodi's were ripe the beetles ate a third of them before I had a chance to pick. Never used Pyganic, maybe I should try that.

[Reply Quote](#)

[Peter Fisher](#)

[Re: Japanese Beetle Strategies](#)

July 31, 2013 05:20AM

Registered: 10 years ago

Posts: 82

We have had significant Japanese beetle problems here in Eastern Iowa since 2010; I think they arrived in this part of Iowa around 2007 or so. Last year was terrible: peaches were a month early, beetles right on time (about July 1) so they coincided, and I discovered just how much they love ripe peaches, dozens swarming on a single peach, probably 2 or 3 hundred beetles per tree, for about a 2 week period. It was also a terrible drought. And this year I didn't see any in the orchard till July 10, a few on 2 apricot trees and our one sweet cherry, and they were gone in about 5 days. Since then, a few on raspberries and arronia berries. I might have seen 60 or 70 total the whole month of July.

Last year I started by knocking them off the branches into a pail of soapy water in the morning or evening, but that quickly became infeasible. They were too numerous, and knocking one branch shook more onto the ground than into the pail. So I resorted to Pyganic, spraying with a little hand sprayer right onto clusters of beetles. Seemed to kill them pretty quickly.

They clearly didn't like the leaves with Surround on them, but I don't like covering ripening peaches with clay. It does not come off. And I used summer sprays of neem oil, but that didn't seem to affect them. But since they overwinter in the ground in my orchard and nearby fields, I assume that what I really want to do is kill them, not just send them somewhere else to reproduce. Hence the Pyganic strategy. They tend to congregate in clusters, so it doesn't seem like you end up using that much if you can spray right on the beetles, and anything you spray on the foliage is just wasted, so covering a tree doesn't seem to be the way to go. I am hoping that this approach minimizes harm to beneficial insects.

Turkey Creek Orchard

Solon, Iowa (zone 5A)

[Reply Quote](#)

[Todd Parlo](#)

[Re: Japanese Beetle Strategies](#)

July 23, 2014 01:41PM

Registered: 10 years ago

Posts: 301

After a teasing delay, the stinkers are back. We did drop a load of milky spore out there this spring, and are about to set out traps as well. I have toggled about the trap thing, but I really think now, that a dead beetle is a dead beetle. Maybe this is a place where there should be funding to have a mass trapping county wide.

Some ideas- We really let things grow this year, only now mowing areas after a long break. The beetles are being found and feeding on a large number of species, including plum, wild and domestic black and rasp berry, grapes, roses evening primrose, etc. etc. Damage really is spread out, and generally unnoticeable despite having encountered thousands of them. Reflecting on my travels to customer's homes, I remember leafless fruit trees and bushes, in a landscape nearly naked except for these plantings. This may be often repeated, but in a desert with a single well, many mouths will soon make it dry.

Second, entomologists use light to attract many species of beetle, particularly mercury vapor or uv light. Many are active in the evening. Trapping at the light periphery apparently works well. This may be worthy of experiment for borers, jap. beetles and chafers.

[Walden Heights Nursery & Orchard](#)

Zone 3 in Vermont

[Reply Quote](#)

[Peter Fisher](#)

[Re: Japanese Beetle Strategies](#)

July 25, 2014 06:23PM

Registered: 10 years ago

Posts: 82

July is almost gone and I have yet to see the beetles in any numbers; one beetle on a grape, another on a raspberry, none in the orchard, even the one remaining sweet cherry (they defoliated and killed 3 young sweet cherries in previous years). We had a dry fall followed by a very long and very cold winter, followed by a very wet spring.

Turkey Creek Orchard

Solon, Iowa (zone 5A)

[Reply Quote](#)

[Dan Lefever](#)

[Re: Japanese Beetle Strategies](#)

May 09, 2015 12:53PM

Registered: 10 years ago

Posts: 15

Good news folks! There is now available a new *Bacillus thuringiensis* (Bt) *galleriae*, with activity against turf grubs (mostly scarab beetles of which Japanese beetle is a member), some weevils (pecan, chestnut?, trialed on plum curculio at MSU with no demonstrated effect),

and some beetle borers (emerald ash borer, for one). It is available for ground use as boreGONE. Even better it can be used for adult feeding of Japanese beetles foliarly; in the beetleGONE formulation. The ground form could be used on "turfed" areas for first season knockdown of population, but it has little carry over action. if any. to the next year, and is probably cost prohibitive as well. Meanwhile milky spore could be applied as it takes time (a few years) for the population to build and control long term; with only one application. Parasitic nemas can be used as well for immediate knockdown of grubs.

Bt g, is produced by [www.Phyllom BioProducts.com](http://www.PhyllomBioProducts.com) in CA; contact person is Kurt [Schwartau@Phyllom.com](mailto:Schwartau@Phyllom.com) It is available from [www.GreenearthAgandTurf .com](http://www.GreenearthAgandTurf.com) of Branford, CT; a very nice mom and pop wholesale company with lots of effective nonchemical products, for landscape industry, and some very useful for orcharding also, including Mycotrol O, insecticide labeled for plum curculio.

other management techniques, trapping, etc. to follow with an edit. Had previously composed it all prior to knowing about Bt g; but lost it before posting due to a mis-keyed entry.

Edited 2 time(s). Last edit at 05/14/2015 12:32PM by Dan Lefever.

[Reply Quote](#)

[Mike Biltonen](#)

[Re: Japanese Beetle Strategies](#)

May 09, 2015 02:54PM

Registered: 10 years ago

Posts: 298

Interesting! Mycotrol O is also effective against Brown Marmorated Stink Bug. And with the emergence of our new pest - blackstem borer (an ambrosia beetle) - the need for effective organic controls is rising. Even conventional controls don't work all that well against these two. Do you have a web address for PhyllomBio - Google couldn't give me one (imagine that!). Thanks.

[Mike Biltonen, Know Your Roots](#)

Zone 5b in New York

[Reply Quote](#)

[Dan Lefever](#)

[Re: Japanese Beetle Strategies](#)

May 14, 2015 12:45PM

Registered: 10 years ago

Posts: 15

Mike,  
See edit corrected post for proper name and website for Phyllom BioProducts. Sorry about that, trying to do it by memory is not always accurate.

Grandevo by Marrone Bio a chromobacteria and ferment product has some activity against plant bugs (labeled) and BMSB (which is not labeled) for it specifically; because it was not effective enough to warrant it I guess. I was told this about BMSB by one of Marrone's product development researchers.

[Reply Quote](#)

[Chris Vlitas](#)

[Re: Japanese Beetle Strategies](#)

July 09, 2017 04:59PM

Registered: 10 years ago

Posts: 47

Edited for brevity

Edited 1 time(s). Last edit at 09/30/2022 05:41PM by Chris Vlitas.

[Reply Quote](#)

[Peter Fisher](#)

[Re: Japanese Beetle Strategies](#)

July 09, 2017 07:13PM

Registered: 10 years ago

Posts: 82

The beetles arrived here in Iowa on schedule, July 1, in substantially larger numbers than last year, but last year we had very few. Glad to hear about other solutions. I am also past the point where I can knock them into a pail. I spray the beetles themselves every evening with Pyganic. They are on Aronia berries, hazelnuts, cherries and certain varieties of peaches, none on pears, only a few on apples. Numbers are diminishing, but there could be a resurgence, or two, if past experience is a guide.

Turkey Creek Orchard

Solon, Iowa (zone 5A)

[Reply Quote](#)

[Chris Vlitas](#)

[Re: Japanese Beetle Strategies](#)

July 19, 2017 01:37AM

Registered: 10 years ago

Posts: 47

Edited for brevity

Edited 1 time(s). Last edit at 09/30/2022 05:41PM by Chris Vlitas.

[Reply Quote](#)

[Liz Griffith](#)  
[Re: Japanese Beetle Strategies](#)

May 25, 2018 10:35PM

Hello, all -

Registered: 7 years ago

Posts: 46

Has anyone had success controlling Japanese Beetle by increasing their resident population of the wasp, *Tiphia vernalis*? We have issues with beetles on Honeycrisp and Lodi (just like Jeff mentioned above a while back in 2013). However my biggest frustration has been managing them in our small table-grape vineyard.

This spring I planted peonies in the center of each grape row. Hoping to make some difference starting next spring. But I'm wondering if anyone else has tried this?

Thanks!

Door Creek Orchard  
Zone 5a in Wisconsin

[Reply](#) [Quote](#)

[Christian Annese](#)

[Re: Japanese Beetle Strategies](#)

July 05, 2018 11:45PM

Registered: 7 years ago

Posts: 12

Never heard of these wasps before, I looked on line and could not find a way to order them.

The beetle population in my orchard has exploded over the past few years. They usually only have a taste for my cherry trees, grapes and one variety of apple but this year they are on every apple tree.

I've coated my smaller, younger trees with Surround as a deterrent and that works okay unless they really like the tree, neem oil seems to have little or no effect on their eating.

I'm building a mass trap to try and cut down the population for next year.

[Reply](#) [Quote](#)

[John Snowdon](#)

[Re: Japanese Beetle Strategies](#)

August 02, 2020 03:02PM

Registered: 8 years ago

Posts: 11

Hi, Chris. I'm in the Monadnock Region and have a small, organic, hobby farm with 15 tree orchard (apple, peach, pear, plum and a pie cherry) plus approx 60 cultivated blueberries, 10 wild blueberries, and 100' of raspberries. This year we have been handpicking Japanese Beetles off of the blueberries and raspberries by the thousands only to see no difference in population. Trees are also obviously involved with half of them fruiting. As I am primarily a beekeeper, I am extremely cautious with insecticidal sprays, tho' recently did spray Entrust very late in the evening.

Having read your posts from 3 years ago about nematodes and Milky Spore, I was wondering if you might update your comments on your results. Greatly appreciated, as I have also been considering the use of both the last couple of weeks. Did you find anything that helped knock them back?

Best,  
John

Honey Meadow Farm, LLC  
Southwestern New Hampshire, Zone 5A  
Elevation: 960'

[Reply](#) [Quote](#)

[Todd Parlo](#)

[Re: Japanese Beetle Strategies](#)

August 02, 2020 05:09PM

Registered: 10 years ago

Posts: 301

I would like to reiterate my statements on this subject from 6 years ago. During this period I have seen no net increase in the beetle population. This time of year there are many about, but would estimate that less than 1% are on my planted species. Overwhelmingly they are on wild brambles, grape, rose, and herbaceous native species. We purposely leave as many of the natives as possible both for many ecosystem services, but included is a draw for pests. The sheer volume of plants in the landscape allows a distraction and food source for beetles, lepidoptera, birds and so on. Some plants are grown specifically for this purpose including many domestic grapes that become naturalized.

Without exception the worst outbreaks of pests including Japanese beetles and Rose Chafers are at clients who have maintained a landscape more akin to a monoculture than a dynamic ecosystem. Most commercial orchards do a poor job in setting an example, where the only things apparently worth planting or managing are the money yielders. Not only does this displace every bit of the native landscape, it creates a vacuum. By eradicating every last bit of food, nesting site of distraction you had better expect that nature will utilize what remains. This should be obvious. Now, a practice like this (enriching the farm) will not remove the critter in question, but should create some level of balance or tolerability. Also, despite the fact that many of these are foreign interlopers, don't they have some right to exist?

As an example, the "production areas" of our farm consists of less than 50% crop species, often much less. Although on paper this would look like a poor use of land by an economist, it kicks ass as environmentalism. And helps with the beetles too.

[Reply Quote](#)

[Peter Fisher](#)

[Re: Japanese Beetle Strategies](#)

August 02, 2020 07:14PM

Registered: 10 years ago

Posts: 82

I find Japanese beetle populations highly variable year to year, and even day to day during the peak in July. I deployed beneficial nematodes last fall and again this spring, and this year we have a below average population of the beetles, but who knows if the nematodes are the reason. I have my doubts. We have 40 acres, mostly woods and prairie and grasslands, 2 acres of orchard. So they have plenty of alternatives, and plenty of places to overwinter.

We also planted a Linden tree, which is a beetle favorite year after year, so if you want to give them an alternative that's a good choice. You could also use it as a trap tree. I can't really say the beetles are causing any significant loss of fruit so I am not sure why I should worry. They are on grapes and Aronia berries and raspberries and apples and peaches, and some years chestnuts. Not interested in pears. They go for the prematurely ripe apples that are wormy and going to drop anyway. When I find large numbers clustering on a particular tree I spray them with Pyganic in the evening. But I will not bother with the nematodes again. I might be more concerned if the raspberries were a commercial crop, but otherwise their presence doesn't coincide with ripening fruit except the earliest varieties of peaches and apples. Their clustering habit also works in our favor, unlike most other insects and birds which seem determined to ruin as many different fruits as possible, and also makes use of Pyganic economical since it has to contact the insect.

Turkey Creek Orchard

Solon, Iowa (zone 5A)

[Reply Quote](#)


[Mike Biltonen](#)

[Re: Japanese Beetle Strategies](#)

August 02, 2020 07:51PM

Registered: 10 years ago

Posts: 298

I agree with what everyone has said so far today. However, you need to make sure you are providing (not removing) ample veg for the JB's outside of the orchard so they are not congregating heavily in the orchard. They can overfeed on any existing alt-crop foliage and then move to your crop. As well, some of your crops are simply more attractive to them than others. And one of the missing pieces of the puzzle is soil moisture. Moisture has a lot to do with when certain insects emerge from the soil and where they feed (e.g., BMS ). More often than not, insects are seeking moisture as much as nutrition. In a droughty year, they may emerge later, stay in the woods primarily, where it is cooler and shadier and more moisture. Unless of course you have an irrigated crop where they pick on the that and move in to gain moisture through your hard efforts. Likewise, in a wet year, they may emerge earlier and be less damaging in the orchard because there's ample moisture everywhere. Then of course there are the plants they prefer (for whatever reason) like evening primrose even if they are right next to your apple tree. These we want to encourage inside the orchard by selectively unweeding certain plants and only taking out the weeds that work against growing a successful crop. In the end, a diverse crop ecosystem is the key to successful pest management.

[Mike Biltonen, Know Your Roots](#)

Zone 5b in New York

[Reply Quote](#)

[Chad Dickson](#)

[Re: Japanese Beetle Strategies](#)

September 02, 2022 06:46PM

Registered: 1 year ago

Posts: 1

Hi Mike. Comparing this year (very little moisture) with other years, I haven't seen much difference in beetle population- actually this year less in our raspberries. They loved our honeycrisp, and really damaged the leaves. I did notice a huge paperwasp nest in one of the HC trees, which I left just in case they like to war with Jap beetles.

[Reply Quote](#)

[Chris McGuire](#)

[Re: Japanese Beetle Strategies](#)

September 18, 2022 02:28AM

Registered: 1 year ago

Posts: 18

i just thought I would weigh in with several years experience using beetleGONE, the Bt product mentioned above. At 2.5 lbs/acre it has given pretty immediate good results but needs to be reapplied every 7 (max 10) days because of constant influx of new beetles during peak populations. It is quite pricey.

When I talked to the manufacturer they said the beetleGONE trials against PC were somewhat poorly conducted and inconclusive. The product is effective against other members of the weevil family and when applied in late summer for JB *might* also give some control of the August adult PC feeding on fruit, which gives me some meager additional justification for spending the money on JB control.

Other native vegetation may be a double edged sword. I seem to see the most JB damage on the apple trees near other preferred hosts like willows, tick trefoil, etc.

Chris McGuire

Southwest WI, zone 5A

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