Welcome to Project Happy Apples! The goal of this project is to assist you in managing wormy apples or pears that you have in your backyard fruit trees. The wormy apples are due to the larval stage of the Codling Moth. This is what the codling moth looks like: This photo is enlarged.

**ACTION:**
We set out our codling moth monitoring trap with lure at the beginning of this week. This is the time to do the same on your trees. Make sure you are buying the pheromone trap/lure. You DO NOT want to buy a mating disruption lure as they have been shown not to be effective in small backyard settings. Locally these pheromone traps with lures are available at Wilco (Bend and Prineville), Coastal Farm and Ranch (Redmond), Helena (Bend and Culver) and Eastside Gardens (Bend). Make sure you are buying both the trap and the lure as sometimes they are sold separately. They run from a single trap/lure kit for $13 up to $20 for two traps with lures. If you need larger quantities you can get them online at Gemplers, http://www.gemplers.com/search/codling+moth+trap. It is important to get these traps set up soon, as the adult moth will be flying and laying eggs shortly.

**MANAGEMENT OPTIONS:**
In additions to cultural controls such as sanitation and fruit bagging, we will be recommending the organic insecticide Neem Oil, and either Spinosad (a soil bacterium) or CYD-X (a granulosis virus). We will be very specific on our instructions of when to apply to protect our bees/pollinators and other non-target organisms, as this is a priority to us!

At the office this year we are using neem oil and spinosad. Neem oil can burn tender leaves as it gets hotter and the sun gets more intense so be sure to spray early in the morning or late in the evening (wind dependent). We will switch to using a sprayable product with the ingredient spinosad as the weather gets hotter. Spinosad has some toxicity to bees so be sure to read and follow label instructions for applications where bees may be foraging to avoid harming our bees. We are using Monterey Garden Insect Spray at the office. There are other products that have spinosad as their ingredient so be sure to read the directions of the product you purchase for spray interval information. Both neem oil and spinosad are available at local garden centers.

CYD-X a microbial insecticide (granulosis virus) is another option for codling moth control. It is very host specific therefore non-toxic to bees and other non-target insects but more costly than some other products. Another advantage to this product is that it has no pre-harvest interval, so you can continue to apply up until the time of harvest. It is a virus that kills the codling moth larvae. To use CYD-X you mix it with non-chlorinated water at pH near 7.0. CYD-X is available online at GrowOrganic.com for around $49.99 for 1.5 ounces.
ACTION:

This year we are using the tree blossoms to determine when to apply the first round of insecticides to control the codling moth. This is a simple technique that is very effective in knowing when to spray your trees if you decide to use an insecticide (Neem oil, Spinosad) or biological control (CYD-X) for management.

The first method takes into account when the tree is in full bloom. Simply look at the flower clusters. **When you see that all the buds in the clusters on the tree have opened, that is full bloom. Count 21 days past this day to determine when your first insecticide application should occur. Mark your calendar so you don’t forget the date.**

The second method may be even simpler, just watch for **all the blossom petals to fall off the tree (natural fall, not due to frost) and count 10 days past that to determine when you should spray.** If you have trees with different flowering times insecticide applications should be determined separately for each tree type.

We are still going to use the degree day models for those of you who want to have this information. According to these models we should be at 3% egg hatch around June 1 but this is totally dependent on the weather so this date may change.