1. **Sanitation** is critical to controlling this pest. Check the fruit on the tree every week. Any fruit with a tiny hole in it should be checked for larvae and disposed of or buried. If by early to mid summer a tree becomes badly infested it is best to strip all the fruit off and start fresh next year with a lower population. During the year you need to remove all rubbish, loose bark, leaves etc. from around the tree.

2. Take a 4-8 inch wide **band** of corrugated card board - the type with the corrugations exposed on one side - and wrap it around the smoothest portion of the trunk with the corrugations facing inward. On large trees the cardboard will need to be wrapped around the primary limbs. Apply the cardboard strip at bloom time and keep it on until harvest. The codling moth larvae will crawl into the corrugations and begin pupating. Every two weeks remove the strip and scrape out the larvae and pupae with a stick or nail and place the cardboard back on the tree. Eventually you will reduce the population in your yard. You will need to keep the cardboard from being sprayed by the irrigation system. (You should not be getting the trunk and crown wet anyway). Use this technique in addition to one or more of the other measures.

3. Another non-chemical method is to **bag** the fruit. This is done in a few commercial organic orchards and works very well. When the fruit is about 2 centimeters in diameter, thin the clusters to the single largest fruit (you should thin the fruit regardless of what system you use). Make a slit in a small paper bag just long enough to slip over the fruit so there is a complete seal around the fruit stem. Staple the open end shut and keep the bag on until two weeks before normal harvest time so the skin can develop some color.

4. The **chemical control** method involves one Sevin (carbaryl) spray at or just after petal fall and a narrow range summer oil every other week beginning one month later continuing until one week prior to harvest. Using the timings given, the Sevin will thin some of the fruit and will provide a few weeks protection until you begin the oil sprays.

   Time to apply the Sevin:
   - Fuji - petal fall
   - Gala - petal fall
   - Golden Delicious - when largest fruit are 10 mm in diameter
   - Granny Smith - when largest fruit are 10 to 15 mm in diameter
   - Pink Lady - early petal fall

   Time to apply the narrow range summer oil:
   - Begin two weeks after you spray the Sevin.
   - Continue every two weeks until one week prior to harvest.

   If you do not want to use Sevin you can begin the oil applications at petal fall and continue every other week until just before harvest. Do not use oil and sulfur within
one month of each other and avoid applying oil when the temperature is going to be above 90°F.

Caution: all pesticides can be hazardous – always carefully follow the label directions. A widely-recognized brand name has been used to describe a chemical. This is not to be construed as an endorsement.

For more information:

UC IPM PROJECT web site:  www.ipm.ucdavis.edu
Select: Pests of home and landscape - Pest Notes
CA Backyard Orchard
http://homeorchard.ucdavis.edu/

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