

Delayed Dormant Sprays, General Orchard Checklist

March 26, 2003

Insect Concerns

Delayed dormant (Stages 1-3 bud development: dormancy through swollen buds, with bud scales still present)

For your dormant/delayed dormant application, uniform coverage is paramount. Water volume per-acre should be at least 200 gal/acre, though larger trees might need 300 gal/acre. Tractor speeds should not exceed 2 mph.

- For peaches, apricots, or nectarines, an application of Horticultural Oil (2%, by volume), Asana, and Lorsban/Supracide will provide broad-spectrum control of SJS, PTB, green peach aphid, and European red mite. The oil + Asana will target PTB and SJS. Success (spinosad) can also be an effective PTB material for delayed-dormant applications. If SJS was a major problem last season, a one-time shot of Esteem is highly effective, although it should only be applied once per season due to resistance issues. Timing for delayed dormant application: calyx green to first pink/white.
- For apples, dormant oil + one of the following: Asana, Pounce, Thiodan or Surround (kaolin clay) will suppress aphids and mites. Some control of *Campylomma* can be achieved with Lorsban at this time. If an orchard has a history of *Campylomma* damage, Lorsban is the recommended material to control nymphs emerging from eggs laid in the bark. As mentioned earlier, SJS populations are readily controlled with Esteem. If mites are the primary concern, oil (2% dilution) can be used alone. Timing for a delayed dormant application: half-inch green.
- For pears, a true dormant application (before bud swell) is recommended for pear psylla and pear rust mite. Oil + Surround, Asana/Pounce, Supracide, or Thiodan will control pear psylla adults (and European red mite eggs). Thiodan shouldn't be used more than twice per year, so bear this in mind in your decision-making. A proven treatment for pear rust mite includes oil + flowable sulfur or lime sulfur. Esteem as a delayed dormant application will target psylla eggs, as well as aphids. Timing for a delayed dormant application: tight or green cluster to first white.
- For cherries, a delayed dormant application of oil + Lorsban, Supracide, or Esteem will control black cherry aphids, ERM, SJS, leafrollers, and fruitworms. If scouting information and historical pest pressures indicate that mites are the only significant concern, oil only will provide good control. Timing for delayed dormant application: side green to green tip.

Disease Concerns

- Fire Blight (Apples, pears): Spray copper + dormant oil during the dormant season. A shot of streptomycin during bloom may be necessary if average daily temperatures exceed 60° F and moisture is present. Promptly prune out blight strikes.
- Powdery Mildew (Apple, cherries): For apples, begin fungicide treatments during the pink stage of bud development. On cherry, scout for mildew after leaves emerge in spring and begin fungicide treatments if you see any fuzzy, powdery patches on leaves.
- Apple Scab (Apple): Treatments need to be based on weather data. The correct combination of leaf wetness and temperature is required for scab infection to occur. When conditions are

favorable for scab, fungicides can be used in a preventative or curative program, or a combination of the two.

- Coryneum (Shothole of Apricot, Nectarine, Peach): Pre-bloom treatments with copper, Bravo 500, 720, or Ziram may be necessary if there is a history of problems with this disease in your orchard.

Upcoming Concerns (Stages 3-4 bud development: buds scales dropped, pink/white, popcorn, ¼”-green, “mouse-ears”)

- Peaches, apricots, and nectarines: Bt for PTB is highly effective through the blooming period; Success will work very well, too, and it will clean up thrips on nectarines. If lygus bugs are emerging, Actara or Asana/Pounce would be effective at this time. Be aware of and keep an eye out for Peach Rusy Spot, which can be a major early-season problem for young peaches.
- Apples: Campylomma sampling is important as the nymphs begin emerging-if populations are high, consider Actara which should work well on them as well as white apple leafhoppers and rosy apple aphid (any treatment for rosy apple aphid should go on at this point so you get them before the young leaves curl around the aphid colony, protecting them from sprays). Very young aphid nymphs were found on some ¼”-green Galas in Genola. All this rain and cold wind will make their lives difficult in the near term, but keep an eye out for aphids. Woolly apple aphids do particularly well in mild-winters, as we’ve had so far.
- Pears: Pear psylla nymphs will be hatching sometime soon; monitor and treat if necessary; Agri-Mek, Actara, Surround, Thiodan, or Asana/Pounce should all work well.
- Cherries: Bt, Success, Lorsban, or Thiodan should control leafrollers and aphids at this stage. Treat only if sampling indicates a need.

Home Orchard Concerns

For the home orchardist, many of the above materials are not available. However, Sevin (carbaryl), diazinon, and chlorpyrifos in various forms are still available and serve as broad-spectrum materials. Insecticidal soaps and horticultural oils are effective materials for mites, aphids, and other soft-bodied insects. Bt is widely available and very effective for all sorts of caterpillars. Use the D-D accumulations and recommended treatment timings to maximize the effect of your sprays. Good luck to all the home orchardists.

General Orchard Checklist

1. Finish pruning.
2. Sprayer calibration (nozzles, tractor speed).
3. Cleaning/replacing sprayer tips, screens.
4. Purchase traps, lures.
5. Purchase chemical materials (since timing is so important, you should have the material weeks before you expect to use it).
6. Always follow product label instructions, and be aware of incompatibilities between materials.
7. Get/assemble sampling equipment.

Precautionary Statement: All pesticides have benefits and risks, however following the label will maximize the benefits and reduce risks. Pay attention to the directions for use and follow precautionary statements. Pesticide labels are considered legal documents containing instructions and limitations. Inconsistent use of the product or disregarding the label is a violation of both federal and state laws. The pesticide applicator is legally responsible for proper use. Any mention of a pesticide brand in this document is not an endorsement by USU, and brand lists are not all-inclusive.

